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United States Department of Agriculture,

FEDERAL HORTICULTURAL BOARD.

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SERVICE AND REGULATORY ANNOUNCEMENTS.

JANUARY–JUNE, 1921.

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RECORD OF CURRENT WORK.

THE PINK BOLLWORM.

INFESTATIONS OF THE 1920 COTTON CROP.

Intensive scouting was maintained throughout the winter of 1920–21, and practically up to the present time, with respect to all the districts in Texas, New Mexico, and Louisiana which have been or are under possible suspicion of having been invaded by the pink bollworm. The infestations found, in addition to those reported in the last number of these announcements (August–December, 1920), are in the general Pecos Valley district, including one point in this valley at Carlsbad, N. Mex. These findings were all made in March, April, and May, 1921, and represented a very limited number of fields and a very trivial infestation in these fields.

The finding of the pink bollworm in Dona Ana County, N. Mex., reported in the last number of these announcements, and later at Carlsbad, N. Mex., necessitated a formal hearing in order to make it possible to bring these infested areas under the restrictions of the Federal quarantine on account of this pest. Such hearing was held December 17, 1920. No quarantine action has been taken awaiting the general determination as to future policies discussed in detail in this number of the announcements.

A report on the present status of all known infestations by the pink bollworm in these States, issued in connection with the pink bollworm conference of May 16, is reproduced in this number of the announcements (pp. 16–17).

EFFORT TO AMEND TEXAS PINK BOLLWORM ACT.

An effort was made during the recent session of the Texas Legislature, February and March, 1921, to have corrected certain defects and omissions in the pink bollworm act of 1920, more particularly to give authority (1) for regional destruction of cotton where such should be necessary rather than limiting such action to fields actually determined to be infested; (2) for regulated and noncotton zones of the counties bordering on Mexico, more in accordance with the provisions of the earlier Texas pink bollworm legislation; and (3) for the establishment of adequate regulated and noncotton zones as to general areas known to be, or under suspicion of being, infested, as the important step in the effort to eradicate this pest.

The urgent need for such supplemental legislation was pointed out in the correspondence with the Governor of Texas, reproduced on subsequent pages of these announcements (pp. 11–15).

INTERSTATE CONFERENCE IN WASHINGTON.

The failure of Texas to give adequate authority for control work and the release of considerable areas which had been invaded and are probably still contaminated with this pest from any control under State law whatsoever, leaving opportunity for the wide extension of this pest in Texas, made it necessary for this department to consider quarantine action applying to the entire State of Texas to protect other cotton-producing States of the South. Before taking such action, however, it seemed desirable to call a conference of all interests related to the cotton industry for the purpose of considering how best to protect this industry against the pink bollworm. The reasons for this conference are fully set forth in the call issued April 12, 1921, and in the personal invitation and accompanying informing statement and maps sent by the Secretary of Agriculture to the governors of some 14 cotton-growing States and to representatives of the important farm, cotton, and educational associations of these States. These letters and documents are reproduced below as a part of the record of the conference (pp. 15–25).

The report drafted by this conference and the news statement issued by this department in relation thereto indicate briefly the results reached by the conference (pp. 26–27). The important result of the conference was the determination of the desirability of proceeding with the campaign of extermination, and that the cost of noncotton zones necessitated as a condition of such extermination should properly be shared by the Federal Government. A strong delegation from Texas representing the important farm interests of that State promised full support in securing adequate legislation and cooperation on the part of Texas.

In the meantime, following the conference in Washington, a State conference was held at Austin, Tex., May 27, 1921, which was attended by representatives of 23 commercial, agricultural, and general organizations of the State. This conference adopted resolutions indorsing the recommendations of the Washington conference (pp. 28–29).

PROPOSED FEDERAL PARTICIPATION IN COST OF NONCOTTON ZONES.

To carry out the recommendation of the conference, relative to Federal participation in the maintenance of noncotton zones, the Secretary of Agriculture

urged such participation in letters to the Chairmen of the Senate and House Committees on Appropriations and also to the Chairmen of the corresponding Senate and House Committees on Agriculture and Forestry. It was first thought that it would be possible to include an item giving this authority in the urgent deficiency bill then under consideration by Congress, but in view of the fact that there is no appropriation involved but merely a request for legislative authority for such participation and the employment therefor of moneys already appropriated by Congress, it seemed desirable to secure the needed action in the form of a joint resolution. A draft of such joint resolution was submitted to Senator Norris, Chairman of the Committee on Agriculture and Forestry, June 8, 1921, and is reproduced in this number of these announcements (pp. 27–28).

BORDER CONDITIONS IN MEXICO.

The entire course of the Rio Grande Valley in Mexico from El Paso to a point below Matamoras was inspected by agents of the board to determine the present border status of the pink bollworm in Mexico. This investigation covered the cultivated areas along the Mexican side of the river at some places extending inward to a distance of 10 miles and at various points up the tributaries of the river to a distance of 25 to 50 miles. Some 107 man-days were spent in this work, and a total of 139 cotton fields were found and searched for evidences of the pink bollworm. The only infestation found, and that was very light, was in the immediate vicinity of San Carlos, nearly opposite Del Rio, where the insect has been known to exist for several years. The reduction of the infestation at that point is due in part to the growth of other crops and to the fact that clean cotton seed has been obtained for planting from Texas.

LAGUNA RESEARCH STATION REOPENED.

With the beginning of this year it seemed desirable to resume the research work on the pink bollworm in the Laguna, Mex., and this station was reopened under a new personnel, with Mr. Walter Ohlendorf as field leader.

PRECAUTIONS TAKEN BY THE FEDERAL HORTICULTURAL BOARD TO PREVENT THE ENTRY AND ESTABLISHMENT OF THE PINK BOLLWORM OF COTTON.

The control which is now being exercised at ports of entry by the United States Department of Agriculture in connection with the importation of foreign cottons to prevent entry of the pink bollworm or other new cotton pests is here summarized. This work involves not only the northern ports of entry for foreign cottons but also the Mexican border control, which covers practically all freight and other traffic entering directly from Mexico.

In all, there are now seven vacuum fumigation plants for the disinfection of imported cotton operating in the United States, as follows: Boston 2, New York 2, Seattle 2, and Oakland 1. A third plant is in course of construction at New York and will shortly be put into operation. From March 10, 1916, to June 30, 1920, 1,503,622 bales of cotton have been disinfected by private fumigating companies under the strict supervision of inspectors of the Federal Horticultural Board.

MEXICAN BORDER.

Fumigation houses which will accommodate from 1 to 15 freight cars have been erected at four of the principal ports of entry on the Texas-Mexican border. A similar house for the fumigation of wagons, automobiles, etc., has also been constructed at Del Rio, Tex. Plans have been perfected and work will start in the immediate future on the erection of a 14-car fumigation house at Nogales,

Ariz. All of these houses have been built out of funds appropriated by Congress and represent expenditures as follows:

Brownsville	$14,124.97
Laredo	23,814.56
Eagle Pass	17,252.63
Del Rio	1,975.14
El Paso (1-car house)	6,259.32
El Paso (15-car house)	28,330.70
Total cost	$91,757.32

Chemicals for the fumigation of cars from October 1, 1919, to April 30, 1921, have cost this department as follows:

Sodium cyanid	$42,741.55
Sulphuric acid	6,709.43
Total cost	$49,450.98

During the period October 1, 1919, to April 30, 1921, cars and vehicles have been entered, inspected, and fumigated at the Texas-Mexican border ports as follows:

Entered and inspected.	Number.	Fumigated.
Cars:		
Brownsville	464	463
Laredo	10,468	9,716
Eagle Pass	6,103	6,078
El Paso	11,340	1,813
[1] Nogales	7,045	.....
Total	35,420	18,070
Vehicles: Del Rio	29,734	202

[1] These figures for period Jan. 20, 1920, to Apr. 30, 1921. Construction of fumigation house now under consideration; cars only inspected and cleaned at present time.

A fee is collected for the fumigation of the cars, representing approximately the cost of the chemicals and labor incident to the operation of the houses. This cost, however, does not include the salaries of inspectors. From October 1, 1919, to April 30, 1921, $77,612.50 has been collected and turned into the Treasury.

The work on the Mexican border consists of the inspection of freight cars and other carriers, and hand baggage of immigrants and travelers crossing at the various ports of entry. Twenty-five inspectors are engaged in this work on the Mexican border.

STERILIZATION OF MEXICAN CORN.

As result of careful inspection of shipments of corn arriving at various ports of entry on the Mexican border, it was discovered that Mexican corn was arriving fouled with cotton seed. In order to prevent the entry of the pink bollworm in cotton seed mingled with corn, Quarantine No. 42 was issued, effective February 21, 1920, with regulations supplemental thereto. These regulations require either the grinding or sterilization of Mexican corn as a condition of entry. Plants for this purpose were constructed at Laredo and El Paso, Tex., and also at Piedras Negras, State of Coahuila, Mexico. All corn entered since the date of the quarantine has been sterilized as a condition of entry.

THE NURSERY STOCK, PLANT, AND SEED QUARANTINE.

Quarantine No. 37, restricting the entry of foreign plants and plant products for propagation, has been now in force for two years. Some minor amendments have been made to this quarantine from time to time. As a result of the practical working out of the quarantine during this period, it has become desirable to make a considerable number of changes in the regulations. These are embodied in the revision of the regulations and accompanying forms reproduced in this number of the S. R. A. (pp. 30–41). The extent of the revision and the reasons therefor are indicated in the introductory note to the regulations. In addition to the notice of quarantine and regulations, there is reproduced the form of application for special permit under regulation 14.

As a matter of permanent record there are reproduced also some announcements and circular letters in relation to the enforcement of this quarantine.

The announcements include (1) authorization to issue special permits for the importation under certain restrictions of rhododendron and azalea seedlings for the period terminating June 1, 1922, and (2) a statement indicating the liberal policy of the board and of the department relative to the issuance of permits for the entry during a reasonable period of adequate quantities of plants for introduction purposes and giving statistics of such permits and plant introductions.

The following circular letters have been issued in connection with the administration and enforcement of this quarantine (pp. 43–57):

No. 128. Nests of Brown-tail Moth and White Tree Pierid Arriving on French Fruit Seedlings. Careful Inspection of All French Stock Necessary. (Feb. 8, 1921.)

No. 130. Restrictions on Entry of Foreign Plants Widely Misunderstood. (Feb. 25, 1921.)

No. 131. Misinterpretation Possible of Inspection at Port of Entry. (Feb. 28, 1921.)

No. 132. Packing Material for Nursery Stock, Plants, and Seeds. (Revised June 8, 1921.)

No. 133. Imported Plants Must be Inspected at Time of Packing and Washed Free from Earth. (Mar. 11, 1921.)

No. 134. Notices of Shipment of Nursery Stock Made a Condition of Entry. (Mar. 23, 1921.)

No. 136. Quarantine 37 to be Strictly Enforced as to Plants Brought by Travelers or Others. (May 4, 1921.)

No. 137. Reasons for Rejection of Miscellaneous Plant Importations. (May 4, 1921.)

No. 138. Special Permits for the Year 1921–22. (July 1, 1921, to June 30, 1922.)

No. 139. A Violation of Quarantine No. 37. (June 14, 1921.)

THE EUROPEAN CORN BORER QUARANTINE.

The regulations under the domestic European corn borer quarantine were amended effective January 15, 1921, to eliminate, during the period from January 1 to June 1, the requirement of inspection and certification of celery, green beans in the pod, beets with tops, spinach, rhubarb, and oat and rye straw as such or when used as packing. There appeared to be no risk during this period from such products, even though grown in the infested area, of distributing the corn borer, and the action was taken to eliminate the cost of inspection during

the season indicated. This amendment, which affects only Regulation 4 under the quarantine, is reproduced elsewhere in this number (pp. 57–58).

The occurrence of the corn borer over wide areas in the Province of Ontario, Canada, makes it advisable to amend the foreign quarantine relative to this pest so as to bring under restriction importations from Canada of celery, green beans in the pod, beets with tops, spinach, rhubarb, oat or rye straw as such or when used as packing, cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers or entire plants of gladiolus and dahlia, except the bulbs thereof, without stems, in addition to the plants and plant products already prohibited or restricted entry by Notice of Quarantine No. 41.

A notice of formal hearing for June 28 in Washington as the basis for such modification was issued June 14 (p. 58).

The corn borer has been determined as occurring in Maine, adjacent to the infested district in New Hampshire and Massachusetts. Other than this, there has been very little, if any, change or development in the situation to be reported. Quarantine action has not yet been taken with regard to the Maine area, but it is under equivalent State and Federal control awaiting a more accurate determination of the extent of possible infestation in that State.

The corn-borer work as now organized involves the regulatory or quarantine control including surveys in New England and New York and elsewhere under the direction of Mr. L. H. Worthley, and the research work under Mr. D. J. Caffrey with laboratories at Arlington, Mass., and Scotia, N. Y. All of this work is under the direction of Mr. W. R. Walton, of the Bureau of Entomology, in cooperation, as to control work, with the Federal Horticultural Board.

MODIFICATION OF GIPSY MOTH AND BROWN-TAIL MOTH QUARANTINE.

An informal conference on the gipsy moth and brown-tail moth situation was held in Washington May 27, 1921. The results of this conference are indicated in the circular letter distributed June 22, entitled "Control Status of the Gipsy Moth in the United States," and in the text of Amendment No. 1 to regulations supplemental to the gipsy moth and brown-tail moth quarantine (No. 45). Both of these documents are reproduced elsewhere in this number (pp. 59–64). In connection with the quarantine notice a revised map, indicating the quarantine zones, is being prepared for distribution.

THE BLACK STEM RUST QUARANTINE.

The black stem rust quarantine (No. 38), which prohibits the movement interstate from the quarantined area of the common barberry and its horticultural varieties, as well as certain other species of Berberis and Mahonia on account of the black stem rust of wheat and other small grains, has now been enforced in cooperation with the States concerned since April, 1918, by mutual agreement on the part of nurserymen, and since May 1, 1919, under Federal quarantine.

In connection with the enforcement of this quarantine a campaign of eradication of the common barberry is being carried out by the Bureau of Plant Industry of this department in the grain-growing districts of the upper Mississippi Valley. During the past three seasons a total of 5,444,000 barberry bushes have been found and 4,230,000 removed. The larger numbers were about 600,000 for Minnesota, 500,000 for Iowa, 200,000 for Wisconsin, and 75,000 for Ohio. Of the 1,214,000 remaining bushes about 1,000,000 are seedling bushes less than 18 inches in height in a single area in southern Wisconsin. The

others are scattered over 6,636 properties. State laws requiring the removal of these bushes are now effective in all 13 States protected by the quarantine. These States are Colorado, Illinois, Indiana, Iowa, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming.

The work for the field season of 1921 is to continue the farm-to-farm survey in as many counties as possible adjacent to those already completed.

THE POTATO WART QUARANTINE.

The States of Pennsylvania, West Virginia, and Maryland, now known to harbor wart infestations, have through their State departments of agriculture, taken effective quarantine measures which seem adequate to protect other States against the introduction of the disease; therefore no Federal quarantine action has been taken. The present State quarantines are administered to prevent the spread of infection from the communities where it now exists, and where, fortunately, potato growing is of no commercial importance, into other regions within these States where the industry is highly developed. The regulations now in effect provide for the listing and inspection of all plantings of potatoes, the use of only approved immune seed, and the establishment of a safety zone outside the present borders of the largest infested area in Pennsylvania within which only wart-immune varieties may be grown.

The task of discovering possible new centers of infestation and of maintaining an intelligent interest among potato growers and agricultural authorities wherever the wart disease might appear or be carried, is assigned to the Plant Disease Survey of the United States Department of Agriculture.

The research work is carried on by a detail to the Board of experts from the Bureau of Plant Industry who act in cooperation with the State agricultural experiment stations of Pennsylvania and West Virginia. The important phases of these investigations are (1) that of developing successful methods of soil sterilization by heat, chemicals or other means, all of which are being tested singly and in combination; (2) the testing of both American and imported varieties of potatoes for reaction to the disease and adaptability to the climates and soils of the infested and adjacent regions, together with studies on the permanence of immunity; (3) the study of the character of immunity in inheritance and the production by breeding of new immune varieties better adapted to these regions; (4) determination of the effect of climatic and soil conditions upon the distribution and development of the disease; and (5) a painstaking study of the life history of the organism.

As a result of the studies already made, and more particularly those indicating the immunity of certain classes of potatoes and the possibility of effective local control by limiting plantings to such immune varieties, the fear that the wart disease might follow the same destructive course in this country that it has in England is now largely removed. This information is now being made the basis of the quarantine measures in effect in all wart-infested areas and gives satisfactory promise that the disease can be held substantially within its present limits, barring the discovery of extensive new infections. The continued necessity for thoroughgoing survey work, and for the strictest administration of the quarantine regulations, is none the less existent, as well as the research work which may ultimately develop means for the eradication of the disease.

A revision of the regulations governing the importation of potatoes into the United States was issued February 16, 1921, effective March 1, 1921. The changes made in this revision are indicated in the letter of transmittal attached to the regulations (pp. 64–65).

There is also reproduced a letter at the instance of this department addressed by the Department of State to the British ambassador in Washington. This letter is in response to a formal request for reconsideration of the embargo on the importation of potatoes from Ireland into the United States. It is reproduced in this number to indicate the reasons which, in the judgment of this department, make it inadvisable to consider favorably the further importation of potatoes from Ireland or other European countries known to be invaded by the potato wart.

THE WHITE-PINE BLISTER-RUST QUARANTINE.

The enforcement of a quarantine of as broad a character and of wide range as the white-pine blister-rust quarantine is necessarily largely by public education and by such prosecutions and punishments as seem desirable in the case of any actual violations which are detected from time to time. These phases of the work are being conducted by the Bureau of Plant Industry in cooperation with this board under the blister-rust appropriation assigned to the Bureau of Plant Industry. Information on the status of the enforcement of this quarantine is indicated in two news statements which have been issued and which are reproduced in this number for permanent record (pp. 71–72). There is also given a digest of State quarantines relating to the white-pine blister rust for the information of shippers of five-leafed pines and currant and gooseberry plants (pp. 73–75).

THE JAPANESE BEETLE QUARANTINE.

The Japanese beetle quarantine is being enforced by the Bureau of Entomology in cooperation with this board and with the States concerned, New Jersey and Pennsylvania. The Federal quarantine has been supplemented by quarantines of like provisions issued by these States providing for intrastate control. At the present time the area known to be infested covers approximately 81 square miles in New Jersey and 10 square miles in Pennsylvania. This territory includes in New Jersey 1,075 farms shipping produce and 89 nurseries and greenhouses shipping various products, and in Pennsylvania 550 farms and 128 nurseries.

During the season of 1920, 44 men were employed in connection with the quarantine inspection and scouting service. At the present time, in addition to the officer in charge of the quarantine work, five men are employed, one of whom is on the Pennsylvania pay roll and one on the New Jersey pay roll. Three men are engaged in mapping and in ferry and nursery inspection.

During the coming season approximately 60 men will be employed in addition to the regular force in inspection and scout work.

During the fiscal year 1920–21, approximately $20,000 were expended in the quarantine work. The work of the fiscal year 1921–22 will require an expenditure of approximately $35,000. The quarantine work is supported largely on Federal funds, which are supplemented by State funds to a certain extent.

THE MEXICAN BEAN BEETLE QUARANTINE.

Following the public hearing held in Washington October 11, 1920 (S. R. A. Aug.–Dec., 1920, p. 140) a quarantine of the State of Alabama was promulgated by the Secretary of Agriculture April 8, 1921, effective on and after May 1, 1921 (pp. 75–78). The Mexican bean beetle was reported in May to occur in Georgia and Tennessee. Quarantine action, if any, to be later taken is deferred pending the outcome of the thoroughgoing scouting of these and

other adjacent States, now in progress under the Bureau of Entomology, to determine whether this pest has not perhaps already gained a much wider distribution in the South than has hitherto been supposed. Such local control as is possible is being exercised by the bureau and State authorities with respect to these new locations pending results of the field surveys.

THE CITRUS BLACK FLY QUARANTINE.

Following the hearing conducted in Washington December 20, 1920, on account of the citrus black fly (pp. 139, 140 S. R. A., August–December, 1920), a quarantine on account of this pest (No. 49, with regulations) was promulgated February 16, 1921, effective on and after April 1, 1921. This quarantine, together with news statements issued in connection therewith, is reproduced elsewhere (pp. 79–82). There is also reproduced a circular letter of instructions to Federal port inspectors with respect to the enforcement of this quarantine (pp. 82–84). As to the Florida ports, this quarantine is enforced altogether by the inspection officials of the State Plant Board of Florida, who have been appointed for this purpose collaborators of the Department of Agriculture. Its enforcement at other ports of entry is under the port inspection service of the Federal Horticultural Board.

THE CITRUS FRUIT QUARANTINE.

The canker disease of citrus fruit has been officially reported as occurring in Australia. It therefore seems desirable to extend the existing quarantine on account of citrus canker to cover not only Australia, but also Tasmania and New Zealand, on account of the close commercial relations between these three countries. To consider the advisability of such extension of quarantine a call has been issued for a public hearing to be held in Washington July 19, 1921 (pp. 87–88).

The existing citrus fruit quarantine on account of the canker disease, promulgated June 27, 1917, covers eastern and southeastern Asia, the Malayan Archipelago, Philippine Islands, Oceania (except Australia, Tasmania, and New Zealand), Japan (including Formosa and other islands adjacent to Japan), and the Union of South Africa. During the past year citrus canker has been taken on grapefruit and oranges from China and India on several occasions at the port of Seattle.

THE DATE SCALE QUARANTINE.

Reference was made in the last number of these announcements (August–December, 1920, p. 125) to the effort which was under way to exterminate the two important scale insects infesting the date plantations in southwestern United States. The appropriation requested from the Congress of $15,000 was given, and the work is now being organized to stamp out the important Parlatoria scale and to determine the possibility also of eradication or, at least, effective control of the other—the red date scale (Phoenicococcus). The work as organized involves the practical field work of extermination and control, and also the biological study of these pests. This latter is being conducted in cooperation with the Bureau of Entomology.

PESTS COLLECTED FROM IMPORTED PLANTS FROM OCTOBER 1, 1919, TO DECEMBER 31, 1920.

The insects and plant diseases intercepted on imported plants and plant products during the period from October 1, 1919, to December 31, 1920, inclusive, are reported in full in the Annual Letter of Information of the Federal Horticultural Board, No. 34, December 31, 1920, now being printed. It includes

both the interceptions made by the inspectors of this department at ports of entry, and particularly of all plant material imported under special permit and passing through the inspection house in Washington, and also the interceptions made by State inspectors of such imported material. It includes, in a long list of insects and plant diseases, a considerable number of pests of prime importance which have not hitherto become established in the United States.

QUARANTINE AND OTHER OFFICIAL ANNOUNCEMENTS.

THE PINK BOLLWORM.

ADEQUATE SUPPORT OF PINK BOLLWORM WORK IN TEXAS URGED.

[Letter and telegram by the Secretary of Agriculture addressed to the governor of Texas urging more adequate State support in the effort to exterminate the pink bollworm.]

FEBRUARY 16, 1921.

Hon. PAT M. NEFF,
Governor of Texas, Austin, Tex.

MY DEAR GOVERNOR: In view of the importance to the entire cotton belt of taking all possible precautions to check the spread of the pink bollworm and, if possible, to exterminate it in this country, I am venturing to bring to your attention the present status of the campaign against the insect in Texas, Louisiana, and New Mexico and to point out the measures which, in the judgment of the department, will be necessary if the pest is to be eliminated.

You will recall that the pink bollworm was first discovered in Texas in the fall of 1917, and that, immediately following that discovery, this department obtained a special appropriation from Congress of $50,000 for the purpose of attempting to exterminate the insect and to prevent its further entry from Mexico. Since that time Federal appropriations for this work have varied from $250,000 to $595,000 annually and have totaled, up to this year, $1,884,360. This, however, does not include the funds expended out of other appropriations for the control and disinfection of imported cotton entered at northern points, which would bring the total Federal appropriations well above $2,000,000. Furthermore, this department has now an estimate before Congress for $666,660 for the continuation of the eradication activities in Texas and Louisiana and for the border control work. These appropriations are an indication of the importance which the Federal Government places on the extermination of the insect.

The menace of the pink bollworm to the cotton crop of this country is, I think, now fully recognized. The estimate made by department experts of losses that would be sustained by this crop if the insect should become established in the country, has been recently substantiated, as you know, by the report of a commission appointed by your predecessor, Gov. Hobby, to investigate the actual ravages of the pest in the Laguna region of Mexico. This commission reported a loss to the Laguna crop in 1920 of approximately 50 per cent, and stated that the loss has been gradually increasing since the first appearance of the insect in the Laguna about 10 years ago. The commission further stated that there is no reason to anticipate, from the climatic or other conditions of the Laguna district, that the damage in Texas or in the South would be less severe. The establishment of the pest in Texas and other Southern States would undoubtedly mean an annual loss of from 20 to 40 per cent or more of the cotton crop, indicating a money loss of several hundred million dollars annually.

CAN THE PINK BOLLWORM BE EXTERMINATED?

Naturally, in considering future operations against the pink bollworm, the principal question to be determined is whether there is a reasonable possibility of exterminating it in Texas, Louisiana, and New Mexico, and of keeping the cotton crop of the United States free from it in the future. In order to give proper consideration to this vital question it is necessary to set out briefly the present status of the insect in these States.

PRESENT STATUS OF THE PEST IN TEXAS.

The infested areas in Texas, as determined in 1917 and 1918, included four districts, namely, the small Hearne area and the large Trinity Bay district,

determined in 1917, and the Pecos Valley district and a few points along the Great Bend, determined in 1918.

Under the support of State law, and with active Federal cooperation and a liberal expenditure of Federal funds, all these districts were thoroughly cleaned of all field cotton in both of these years. Furthermore, the two older districts—Hearne and Trinity Bay—were maintained as noncotton zones in 1918, with the exception of some small areas in the Trinity Bay district which were planted in defiance of the State quarantine.

The Hearne area has been maintained as a noncotton zone from the beginning and no pink bollworm has been found in cotton grown in the areas surrounding this district since that time.

The Pecos Valley district was very scatteringly infested, and control has been effected by thoroughgoing eradication work, in the fall and winter of 1918–19 and again in the fall and winter of 1919–20. The extermination of the insect at this point seems to have been accomplished. When a single dead larva was found in this district in the fall of 1919, the whole area under suspicion was thoroughly cleaned for the second time, as noted, in the fall and winter of that year. No recurrence of the pest in the Pecos district was determined for the crop of 1920.

The Great Bend district has been maintained substantially as a noncotton zone since 1919 and, in the opinion of the experts of the Department, should be continued as such until cooperation with Mexico will enable the safeguarding of the Mexican side of the valley. Cotton growing in this district is of relatively little importance.

The Trinity Bay area, as already indicated, was maintained substantially as a noncotton zone for 1918. Cotton was grown as a tryout more or less throughout the district in 1919, and, while some slight infestation developed late in the fall of that year, it was very much less than in 1917, indicating clearly that the cleanup operations and the noncotton zone had very materially reduced the numbers of the pest.

During a special session of the legislature held during the incumbency of your predecessor, Gov. Hobby, I called his attention to the need of adequate legislation to permit the State and department to establish adequate quarantines, including noncotton zones, in the hope of promptly effecting eradication of the pink bollworm from the infested areas. Unfortunately, the pink bollworm act finally adopted by the legislature did not fully meet these needs, and in the administration of the act State authorities have not been able to fully carry out the plans which we and they believed were essential in an effective extermination campaign. It is clear that the failure to establish the noncotton zones in infested areas, as originally recommended, is resulting in increased expense and is jeopardizing the possibility of extermination. The weather conditions of the past season, however, have aided in limiting the spread and development of the insect in the infested regions, and the officials of the department do not feel that there is any reason to be very doubtful of ultimate success if we can promptly undertake more effective control measures for the coming season.

The only new infestation which has developed in Texas since 1918 is in the El Paso district. This was determined late in 1920 and was to be expected in view of the fact that it is contiguous to Juarez, Mexico, the terminus of two important Mexican railway lines which are continually bringing cars more or less fouled with cotton seed to this point. Living pink bollworm larvae have been found frequently in such seed, and it is a comparatively easy matter, therefore, for the insect coming from such seed to reach the adjacent cotton fields on the American side of the river. Undoubtedly the infestation in this comparatively new cotton development was brought about by this means. It has been carried into the Mesilla Valley, which is merely a northern extension of the El Paso irrigation district, and steps already have been taken to secure cooperation on the part of the State of New Mexico in the effort to eliminate the pest.

Summing up the situation in Texas: There have been five areas of infestation in the State. Two, probably three, of these, namely, the Hearne, Pecos, and the Great Bend districts, have been either apparently freed or substantially freed from the pest The Trinity Bay district has been very greatly reduced both as to the area and amount of infestation. The El Paso area, in the judgment of the experts of the department, can be cleaned up by the maintenance of a noncotton zone. I am told that cotton is grown here only under irrigation and that there is no volunteer cotton. The elimination of its food plant,

therefore, would mean the elimination of the insect. Unfortunately, the noncotton zone in this district would have to be maintained indefinitely, or at least until cooperation with the Mexican Government, which will enable the cleaning up of the district on the Mexican side of the river, can be secured. It may be noted, in this connection that Mexico already has indicated a desire to cooperate in such an effort.

SITUATION IN LOUISIANA.

Briefly, the outlook for the extermination of the pest in Louisiana is quite as good, if not better than in Texas. The three parishes determined as infested in 1919 were maintained as noncotton zones in 1920, with thoroughgoing cooperation on the part of the State and planters, and will be continued as such for all the areas actually known to be infested in 1921. The areas about the five towns which were under suspicion because of shipments of seed to oil mills have been under regulation and all cotton grown in them has been safeguarded. The insect has appeared at only one new point in the State, namely, at Shreveport, one of these five towns, and here the State has provided for a noncotton zone for 1921 and a wide surrounding safety or regulated zone. Thoroughgoing clean-up operations also have been carried out in this new district.

THE EL PASO AND MEXICAN LABOR FACTORS.

In connection with the eradication work in Texas, I am advised that there are two matters which have come up for local discussion in the State and which, therefore, require special consideration. These are the desirability of making the El Paso district a regulated zone instead of a noncotton zone and the bearing of the irregular entry of labor from Mexico on the control work in the State.

THE EL PASO SITUATION.

With respect to the first of these, it may be pointed out that the growth of cotton in the El Paso district under regulation would mean the acceptance of permanent infestation there, which would very soon reach a maximum and become a menace not only to all of Texas and New Mexico but also to Arizona and California, and, in fact, to the cotton crop of the United States. Furthermore, such infestation would probably eliminate, within a short time, the possibility of the profitable growing of cotton in this district. The immediate gain, therefore, would be offset by the tremendous possibilities of harm to the most important staple of the South. In other words, widespread infestation in the Rio Grande Valley near El Paso, both in Texas and in New Mexico, would mean the almost certain carriage of the insect in ordinary traffic, as well as in the traffic of cotton and cotton products, eastward through Texas and the South and westward to the Pacific coast. El Paso is a traffic center and is therefore a point of extreme danger in this respect, situated as it is midway between the eastern and the western cotton-producing areas of the country.

There is a possibility, of course, of the continuation of the growth of cotton on the Juarez side of the river opposite El Paso. As already indicated, however, this department has been advised of a desire on the part of Mexico to cooperate in an effort to free the whole El Paso Valley and, in fact, the whole Rio Grande Valley from this pest. Furthermore, any cotton or cotton products produced on the Juarez side of the river would have to find its market in Mexico and would not be permitted to enter the United States except from Mexican ports by ocean carriage to Boston or New York. This fact would, in all probability, operate as a very strong deterrent to the growth of cotton on the Mexican side, even if Mexico failed to join in a vigorous effort to clean up and to protect this district from further infestation under the plan proposed of establishing an inspection and disinfection service of all rail traffic at some point in the interior of Mexico. Furthermore, the disinfection of all railway cars and traffic which is now being enforced by this Department at Juarez in large disinfecting plants built for that purpose is designed specifically to prevent the carriage of the insect by rail traffic entering El Paso, and to further protect the transcontinental traffic centering here.

THE MEXICAN LABOR FACTOR.

The irregular entry of Mexican labor into Texas undoubtedly involves a risk, but it is a risk which has been a continuing one for many years past, and, in

fact, with the exception of the infestations along the upper Rio Grande, all of the infested districts both in Texas and Louisiana are adequately explained by commercial shipments of infested cotton seed or cotton lint. The infestations in the El Paso and Great Bend districts are believed to be due, in part at least, to infested seed brought by Mexican laborers, but in the case of the El Paso district the continual bringing of infested seed into Juarez on the Mexican side, as already explained, is probably an important source of the infestation at this point. To lessen the risk from Mexican laborers this department has urged the Department of Labor to attempt to more adequately patrol and safeguard the border in order to prevent the irregular entry of such laborers and to compel, as far as possible, all Mexican laborers to pass through the regular channels, thus giving opportunity for the detection of any infested material. The department has also indicated to the Department of Labor its willingness to join in an effort to secure from Congress adequate funds to strengthen for this purpose the border patrol of the Immigration Service.

There is, perhaps, another means of accomplishing much good in this direction, namely, an educational campaign which will emphasize to planters throughout the State who employ Mexican laborers the danger which such laborers may bring to their plantations through the accidental transportation of cotton seed in baggage or household goods, as in pillows, mattresses, etc., and induce them, or the local authorities, to make a thorough investigation in each case, and, where necessary, to disinfect or even destroy such belongings.

I have written you very fully because I feel that it is desirable to give you an adequate presentation of the whole situation as we see it. In brief, the officials of the department are of the opinion that, if the efforts to exterminate the pink bollworm are to be effective, provision should be made by law for the establishment of noncotton zones in all districts which were infested in 1920, namely, in the infested areas of the Trinity Bay district, including reasonable surrounding areas, the El Paso district and the Great Bend district—the latter irrespective of infestation in 1920, in view of the situation relative to infestation in Mexico. Further than this, they believe that regulated zones should be established to include (1) all the old Trinity Bay district outside of the noncotton zone which is determined for 1921, and (2) the Pecos district; and that the border zone created originally under the terms of the law of 1919, which authorized either noncotton or regulated zones, as the conditions might warrant, on the basis of known infestation in Mexico near the border, should be reestablished. If the State so desires, the Hearne district may now be released from all regulations, inasmuch as no reappearance of the insect has been discovered there for three years, but it should be kept under close observation and field inspection.

If the State of Texas can give the support herein indicated in connection with the liberal Federal support which is available through this department, the officers of the department familiar with the situation feel that there is a possibility of exterminating the pink bollworm and of freeing this country indefinitely from this great menace to the cotton crop. If extermination is to be effected, however, it is an opportunity of the moment. The control operations referred to must be carried forward in the most effective manner and without interruption, or the money spent will be wasted and the opportunity for extermination will be lost altogether.

If you so desire, I shall be very glad to have you present this letter to the legislature of your State, now in session, as representing the judgment of this department with respect to this difficult problem.

Respectfully, E. T. MEREDITH,
Secretary.

WASHINGTON, *D. C., February 17, 1921.*

Hon. PAT M. NEFF,
Governor of Texas, Austin, Tex.:

Solely with desire to be helpful to Texas in her effort to adequately meet pink bollworm situation, I am venturing to bring to your attention, in letter mailed to-day, present status of campaign against insect in Texas, Louisiana, and New Mexico, and to point out measures which, in the judgment of the Department, will be necessary if pest is to be eliminated. Officials of Department familiar with situation feel that it is essential, first, to maintain as noncotton zones all known infested districts, second, to maintain as regulated zones all areas in the State which have at any time been infested,

together with adequate surrounding safety zones, and, third, to maintain regulated and noncotton border zones substantially as provided for in Texas pink bollworm law of 1919. In view of possibilities of spread of insect any material modification of this program will, in opinion of officers of Department, mean ultimate establishment of pest throughout the State and the South. Sincerely hope that in interest of completely removing this menace to cotton industry of the country you will give matter careful consideration.

E. T. MEREDITH.

COTTON CONFERENCE.

[Press notice issued Apr. 12, 1921.]

The United States Department of Agriculture is issuing a call for a conference of persons and interests related to the cotton industry to be held in Washingon, May 16. The purpose of the conference is to consider how best to protect the cotton industry against the pink bollworm, the most dangerous of cotton pests.

This pest entered the United States from Mexico in the fall of 1917, appearing first in Texas. Prompt measures were taken to beat it back and about $2,000,000 have already been expended by the Federal Government.

With the complete cooperation of the States invaded there seemed to be a fair chance of eradicating the insect. Unfortunately, the State of Texas has failed to provide for such adequate quarantine and control work as is regarded absolutely necessary by the scientists of the Department of Agriculture and, because of this lack of full cooperation, there is now great danger that the pest will be disseminated throughout Texas, which means, in course of time, throughout the cotton belt.

The department is now considering quarantine measures which will check the invasion from Texas to the greatest possible extent, and the purpose of the conference is to consult with delegates from other States interested before taking definite action.

PERSONAL INVITATION TO COTTON CONFERENCE.

The following letter from the Secretary of Agriculture was sent to the secretaries of agriculture and the quarantine officials of the cotton-growing States, and others known to be especially interested in the subject, and also to farm and cotton organizations:

APRIL 29, 1921.

DEAR MR. ———:

I am inclosing, for your information, a call issued by this department for a cotton conference on May 16, 1921. The purpose of the conference is to consider how best to protect the cotton industry against the pink bollworm. It is hoped that there will be a good representation from all States interested in cotton production, and invitations are being sent to the secretaries of agriculture and quarantine officials of these States and others known to be especially interested in the subject, and also to the farm and cotton organizations.

I shall be glad if you can attend and participate in this conference.

I am inclosing a memorandum giving briefly the present status of the pink bollworm in the South for the information of those who may wish to attend the conference.

I will appreciate it very much if you will notify me whether it will be possible for you to attend.

Very truly yours,

HENRY C. WALLACE,
Secretary.

REPORTS, MAPS, ETC., SUBMITTED TO CONFERENCE.

PINK BOLLWORM SITUATION SUMMARIZED.

In connection with the pink bollworm conference called by the Department of Agriculture for May 16, it seems desirable to give a brief review of the existing pink bollworm situation.

Importance of the pest.—The menace of the pink bollworm to the cotton crop of this country is now fully recognized. Based upon the losses occasioned by

this pest in recent years in Egypt, Brazil, Hawaii, and Mexico, the department experts have estimated that its establishment throughout the cotton belt of the United States would undoubtedly mean an annual loss of from 20 to 40 per cent of the cotton crop, or a money loss of several hundred million dollars annually. Recently these estimates have been supported and even exceeded in the report of a commission appointed by former Governor Hobby of Texas to investigate the actual ravages of the pest in the Laguna region of Mexico. This commission reported a loss to the Laguna crop in 1920 of approximately 50 per cent and stated that the loss has been gradually increasing since the first appearance of the insect in the Laguna about 10 years ago. The commission further stated that there is no reason to anticipate, from the climatic or other conditions of the Laguna district that the damage in Texas or in the South would be less severe.

Origin of the pest.—The pink bollworm is a native of India, from whence it was carried to Egypt in 1906–7 through shipments of unginned cotton. During the last 10 years it has been carried to most of the other cotton-producing countries of the world through the agency of Egyptian cotton seed.

As is now known, the pink bollworm reached Mexico about 1911, through such seed imported from Egypt by Mexican planters, resulting in the establishment of this new pest in the Laguna, the principal cotton-growing district of Mexico. It is also now known that this pest reached the United States through the agency of the movement in 1915 and 1916 of cotton lint and seed from Mexico. Its occurrence in Mexico was determined November 1, 1916, and in Texas in the fall of 1917. Following its determination in Mexico further entry of seed and lint from that country was safeguarded and the previous movements of these articles were traced to locate the points of possible infestation in Texas. These proved to be very restricted and it was apparent that there was a reasonable chance of exterminating this pest in that State.

Immediately following the discovery of the presence of the insect in Mexico the department obtained a special appropriation from Congress of $50,000 for necessary survey in Texas and other States and to prevent further entry of the insect from Mexico. Since its discovery in Texas in 1917 Congress has made liberal appropriations for work of eradication, totalling nearly $2,500,000, of which $554,840 are for the coming fiscal year. These appropriations are an indication of the importance which the Federal Government places on the eradication of this pest.

Can the pink bollworm be eradicated?—Naturally, in considering future operations against the pink bollworm, the principal question to be determined is whether there is a reasonable possibility of eradicating it in the States in which it is now known to occur and of keeping the cotton crop of the United States free from it in the future. In order to give proper consideration to this question, it is necessary to set out briefly the present status of the insect in these States.

Present status of the pink bollworm in Texas.—There are five areas or districts of infestation now known in Texas, namely, the Hearne, Trinity Bay, Pecos Valley, Great Bend, and El Paso districts. The Hearne and Trinity Bay districts were the original centers of infestation in the State and the others are of later origin. A more detailed description of these districts is given in an appendix, together with a statement of the present control in Texas.

Of these five areas of infestation two, and possibly three, namely, Hearne, the Great Bend, and Pecos, have been apparently either completely or substantially freed from the pest. The Trinity Bay district has been very greatly reduced both as to area and amount of infestation. The El Paso area, in the judgment of the experts, can be cleaned up by the maintenance of a noncotton zone. The districts involved in these five points of infestation in Texas represent less than one per cent of the cotton area and production of the State, and in view of the future menace from this pest the outlook for eradication is still sufficiently favorable to warrant every possible effort being made to accomplish it if the State of Texas can be induced to give adequate legal support and cooperation.

The failure of Texas to provide for such quarantine and control work as will in the judgment of the experts of this department and of the several States be adequate to hold the pest within its present limits in that State, and the abandonment as a general policy of the only method—enforcement of noncotton zones—which could possibly lead to the extermination of the pest in the infested areas, necessitates a careful consideration of the whole future pink-bollworm work in the United States, and more particularly the quarantine or

control action which should be taken with respect to the insect to prevent its spread throughout the cotton-growing States.

Present status of the pink bollworm in Louisiana.—The occurrence of the insect in three parishes in southwestern Louisiana, adjoining the Trinity Bay district of Texas, was determined in the winter of 1919–20. The extension into Louisiana was evidently due to some movements of cotton seed for planting from the adjacent Texas district. The very prompt and efficient action taken by the State in providing legislative authority and in making adequate appropriation has brought about a most favorable outlook for the eradication of the pest in that State. Briefly, the outlook for the extermination of the pest in Louisiana is quite as good if not better than in Texas. The three parishes determined as infested in 1919 were maintained as noncotton zones in 1920, with thoroughgoing cooperation on the part of the State and planters, and will be continued as such for all the areas actually known to be infested in 1921. The areas about the five towns which were under suspicion because of shipments of seed to oil mills have been under regulation, and all cotton grown in them has been safeguarded. The insect has appeared at only one new point in the State, namely, at Shreveport, one of these five towns, and here the State has provided for a noncotton zone for 1921, and a wide surrounding safety or regulated zone. Thoroughgoing clean-up operations also have been carried out in this new district.

The pink bollworm in New Mexico.—The El Paso infestation extends very slightly into New Mexico north of El Paso, and there is another small point of invasion at Carlsbad in the Pecos Valley in New Mexico. Both of these points of infestation were determined the past winter and are in areas under irrigation and possible of effective control under adequate State authority. A public hearing has already been held relative to the occurrence of this pest in New Mexico and this State can now be included in any quarantine or control action taken with respect to any or all of the invaded States.

Eradication or spread throughout the South, the alternatives.—Up to this time the effort of this department, in connection with the States concerned, has been to eradicate the insect, which, if successful, would eliminate the danger from this pest indefinitely. Such eradication involves the prohibition of the growth of cotton in invaded areas together with provision for adequate control of cotton in surrounding and other safety zones. The alternative of attempting to control the pest with the continuation of the growth of cotton as to areas actually invaded necessarily recognizes and accepts the inevitable increase of the pest as to such areas and its constant spread to new areas and ultimately throughout the South. The enforced change of policy as to Texas, necessitated by the failure of that State to make possible such eradication, has a very serious phase, therefore, for other cotton-producing States, even including Louisiana, where the effort looking to extermination is still going forward with every promise of success and with full State support.

Extermination still possible.—The experts of the department who have given careful consideration to the subject believe very strongly that if the States concerned give adequate support to the work there is a strong possibility of exterminating the pink bollworm and of freeing this country indefinitely from this great menace to the cotton crop. If such extermination is to be effected, however, it is an opportunity of the present moment and the necessary control operations must be carried forward efficiently and without interruption for a period of at least three years or the money spent will be wasted and the opportunity for extermination will be lost altogether.

APPENDIX.

Brief History and Present Status of Invaded Districts in Texas.

The history of the five districts in Texas invaded by the pink bollworm briefly is as follows:

THE HEARNE DISTRICT.

The Hearne infestation resulted from the movement of Mexican seed for milling to that point prior to the establishment of the Federal quarantine in 1916. The infestation was limited to a few small fields and these and the surrounding district have been maintained as a noncotton zone from the beginning (1917), and this district is now believed to be entirely free from the pest.

THE TRINITY BAY DISTRICT.

The Trinity Bay district covers a considerable area surrounding this bay but over most of which, owing to unfavorable climate and topography, relatively little cotton is grown and a successful crop is produced on an average only once in three years. The infestation of this district originated with the great storm of 1915, which carried away some Mexican cotton from the wharves at Galveston and scattered the lint heavily around the shores of the bay.

This district was cleared of all old cotton in the fall and winter of 1917–18 and again in 1919–20. It was maintained with substantial completeness as a noncotton zone throughout 1918. It was replanted more or less sparsely to cotton in 1919 and the insect reappeared in much reduced numbers over the original zone. It was again replanted in part to cotton in 1920, but owing to a poor crop season much of this cotton failed to survive. The actual findings of the pink bollworm in connection with the crop of 1920 show a reduction of perhaps 50 per cent in area and much more than that in actual abundance of the insect from the status of 1917. This result has been reached with only partial cooperation on the part of the State and planters, and it is believed that thoroughgoing cooperation in the enforcement of a noncotton zone since 1917 would have by now probably exterminated the pest. Such extermination for this district is believed to be still a reasonable possibility.

THE PECOS VALLEY DISTRICT.

The Pecos Valley district received its infestation from seed cotton grown on the Mexican side of the Great Bend of the Rio Grande and smuggled across and hauled to Barstow in the Pecos Valley for ginning. This infestation was detected in the fall of 1918 and was limited to a few fields and to a few plants only in such fields. In view of the isolation of this district from other cotton cultures and the thorough control which could be maintained with respect to it under the growth of cotton by irrigation, the continuation of the growth of cotton was permitted during the years 1919 and 1920. Intensive and repeated field examinations in 1919 resulted in the finding of but a single infested plant and a single insect. Similar investigations in 1920 have resulted in finding no insects in the old infested area but the location of a few new points of infestation also equally limited. This whole region was thoroughly cleaned of standing cotton in the fall and winter of both 1918–19 and 1919–20, and a similar cleaning has been given to the field and district involved for the crop of 1920. The situation in this district is therefore very favorable for ultimate eradication.

THE GREAT BEND DISTRICT.

The Great Bend district involves as possibilities for cotton culture a few very limited valleys at the foot of the mountains, and cotton planting in this long strip of river border is of recent origin and has never much exceeded 100 acres. The infestation here came from similar plantings on the Mexican side; in other words, from the same source as carried the insect to the Pecos district. Under State control no cotton has been allowed to be grown in this district since 1918, and the prohibition of cotton culture should be continued indefinitely as part of the plan of a neutral border strip provided for in the earlier Texas pink bollworm legislation.

THE EL PASO DISTRICT.

The El Paso district represents a new cotton venture, having its origin in very limited plantings in 1919, followed by extensive plantings in 1920. This district comprises the narrow, irrigable strip along the river extending southeastward 60 or 70 miles and northwest into New Mexico; or in other words, the land subject to irrigation under the Elephant Butte project both on the American and Mexican sides of the river. The insect was not found in 1919 but was quite generally present in the fields of 1920. On account of its proximity to possible cotton culture in Mexico and its situation relative to Juarez, the terminus of two important railway lines which are continually bringing to that point cars more or less fouled with cotton seed infested with this pest, together with the poorly controlled movement of Mexican laborers across the border, this general river strip is almost certain to be reinfested every year under any system of cleanup or control which involves the continuation of the growth of cotton. This necessitates a continuing noncotton zone for the gen-

eral district if the pink bollworm is to be kept out of Texas, or until such cooperation with Mexico is obtained as will lead to the cleaning up of the cultivated land on the Mexican side of the river and the freeing of the railway traffic—cars and freight—centering at Juarez from infestation at some interior point in Mexico. It may be noted that Mexico already has indicated a desire to cooperate in both of these control features. The necessity for the thorough control of the pest at this point is emphasized by the fact that El Paso is an important traffic center and heavy infestation at this point would almost certainly be a means of distributing the pest into Arizona and California westward, and throughout Texas and other cotton States eastward.

The infestation in the El Paso district is tied up particularly with the irregular entry of Mexican labor and the risk from this source applies in a minor degree to other cotton-growing areas, particularly of western Texas. The similar entry of labor into the main cotton belt of central and eastern Texas comes almost altogether from parts of Mexico in which the pink bollworm does not occur and therefore does not involve the same risk. Undoubtedly, much of the infestation in the El Paso district is due to cotton seed brought by such labor with their belongings or as stuffing for pillows, mattresses, etc. The prevention of such irregular entry has already been taken up by this department with the Department of Labor and there is a possibility of more efficient control in the future. All labor which enters through the regular immigration channels is carefully inspected and all cotton seed carried directly or with household belongings, as indicated, is intercepted and destroyed. The planters employing such Mexican labor can further be warned to themselves safeguard the risk to a very large extent by assuming responsibility for inspecting and safeguarding the household and other equipment of such labor.

THE PRESENT CONTROL IN TEXAS.

The principal defects of the pink bollworm law of Texas are (1) that it fails to give authority to establish regulated and, if necessary, noncotton zones in counties bordering on Mexico on the determination of nearby infestation in Mexico, and independent of any actual infestation in the counties concerned, as was provided for in the law of 1919; (2) that it limits the destruction of cotton to infested fields, and, therefore, prevents any wider or regional destruction of cotton such as will often be necessary for effective work of extermination; and (3) that the establishment of noncotton zones on the basis of determined infestation, is weakened by making it necessary to reestablish such zones yearly.

In connection with the recent session of the Texas legislature, this department pointed out to the Governor of Texas the need of amending the existing act, and various organizations related to cotton production in Texas also undertook to secure such amendments. Unfortunately these efforts failed.

The actual control for the crop season of 1921, we are advised, is substantially as follows:

A considerable portion of the old Trinity Bay district has been eliminated from all control whatsoever, including much of the area which was most heavily infested in 1917, and in which it is very improbable that the pink bollworm has been completely exterminated. A noncotton zone has been declared for a small central portion of the Trinity Bay district, together with a few outlying points, and a comparatively small surrounding zone is designated as regulated. This action leaves opportunity for free movement of cotton from considerable areas of the old Trinity Bay district in which there is every reason to believe that reinfestation will again develop.

With respect to the El Paso district the commission has provided merely for a regulated zone and this amounts to the abandonment of the extermination plan and an acceptance of continued and increasing infestation for this district with the chance of wide spread therefrom throughout Texas and into adjoining States. No control whatever seems to have been provided for any of the border points including the Great Bend area.[1] It is to be expected that the recent findings of scattering reinfestation in the Pecos region will result in a continuation by the commission of a regulated zone for that general district. The Hearne area has been eliminated, and properly so, from all control, inasmuch as no reappearance of the pest has been determined at that point subsequent to 1917.

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[1] This area has been declared a regulated zone.

NOTE.—A detailed record of the infestations in western Texas by fields, involving some records obtained subsequent to the preparation of this statement, was presented to the conference and is reproduced below under the title "Miscellaneous Data on the Pink Bollworm Situation."

MISCELLANEOUS DATA ON THE PINK BOLLWORM SITUATION.

The localities inspected in the several cotton-growing States in the following table are those which had received cotton, cotton seed, and cottonseed hulls from infested districts in the years immediately preceding the discovery of the occurrence of the pink bollworm and prior to the enforcement of regulations and control of the cotton products of such districts. The board is in possession of the records of the movement of the products concerned and of the actual details of inspection. The possibility of infestation at those localities was very remote, on account of the incipiency of the infestation in the infested districts and the fact that these districts were discovered for the most part at the very outset of invasion. Nevertheless, the department wished to follow up every possibility of distribution so that if there should have been any wide carriage of the pest to other States it could be determined before the pest had made any headway. It should be noted that with the exception of the infestations in the three States (Texas, Louisiana, and New Mexico) there has been no evidence of the occurrence of the pink bollworm at any other point in the South, the origin of the infestations in these three States having already been fairly well accounted for.

Summary of field inspections and infestations by States, account of pink bollworm 1917–1921.

State.	Number of localities inspected.	Number of man-days devoted to inspection.	Period.	Number of infested fields.	State.	Number of localities inspected.	Number of man-days devoted to inspection.	Period.	Number of infested fields.
Alabama	7	93.9	1918–20	.....	Mississippi	9	26.7	1918–20	.....
Arizona	30	104.3	1918–20	.....	New Mexico	13	548.7	1918–21	6
Arkansas	9	19.0	1918–20	.....	North Carolina	15	147.4	1918–20	.....
California	3	15.4	1920–21	.....	South Carolina	14	256.9	1918–20	.....
Georgia	14	272.1	1918–20	.....	Texas	265	12,439.4	1917–21	269
Louisiana	84	2,002.4	1918–21	31					

1920 pink bollworm infestations in western Texas and New Mexico, by counties.

County.	State.	Fields inspected.	Fields infested.	Number days inspecting.	Number days before finding pink bollworm.
Dona Ana	New Mexico	48	[1] 4	215.5	4.4
Eddy	do	92	2	248.2	48.9
El Paso	Texas	31	[2] 7	203.3	104.8
Hudspeth	do	13	[2] 8	94.4	
Reeves	do	20	5	89.9	275.8
Ward	do	103	1	306.6	
Pecos	do	33	[3] 2	127.6	7.7

[1] The infestations in this county are limited to a small group of fields within 2 or 3 miles of each other near Anthony, N. Mex.

[2] The infested fields in El Paso and Hudspeth Counties are situated on the banks or quite near the Rio Grande River and with the exception of one of these (Field No. 6, Hudspeth County, Table IV following) were only slightly infested.

[3] An additional infested field in this county was later determined at Buena Vista. A few additional infested fields have been determined in Pecos and Ward Counties in the Pecos Valley, involving, however, only two new localities, namely, Grand Falls in Ward County, and Imperial in Pecos County. The percentage of infestation as worked out for the infested fields in western Texas and southern New Mexico is seven-hundredths of 1 per cent. Eliminating, however, one or two fields, particularly one field in Hudspeth County which had an infestation of approximately 4 per cent, the general average of infestation for the entire infested fields in western Texas and southern New Mexico would be reduced two-thirds, or to approximately twenty-five thousandths of 1 per cent.

Record of infested fields.

DONA ANA COUNTY, N. MEX.

Total fields inspected, 48; infested, 4; number days inspecting, 215.5; number days before finding pink bollworm, 4.4.

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	0.4	5	5	.....
2	2.6	5	4	1
3	4.4	2	2	.....
4	12.2	1	1	.....

EDDY COUNTY, N. MEX.

Total fields inspected, 92; infested, 2; number days inspecting, 248.2; number days before finding pink bollworm, 48.9.

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	2.6	13	.....	13
2	3.9	1	.....	1

EL PASO COUNTY, TEX.

Total fields inspected, 31; infested, 7; number days inspecting, 203.3; number days before finding pink bollworm, 104.8 [1]

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	1.9	1	1	.....
2	7.1	7	4	3
3	1.9	3	.....	3
4	3.1	2	.....	2
5	37.7	2	.....	2
6	1.9	6	1	5
7	43.5	5	.....	5

[1] Covers also Hudspeth County, Tex.

HUDSPETH COUNTY, TEX.

Total fields inspected 13; infested, 8; number days inspecting, 94.4; number days before finding pink bollworm, 104.8.[2]

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	2.2	4	.....	4
2	.7	3	.....	3
3	3.5	1	.....	1
4	.6	4	.....	4
5	.6	1	.....	1
6	.4	15	.....	15
7	.7	1	.....	1
8	1.1	5	.....	5

[2] Covers also El Paso County, Tex.

Record of infested fields—Continued.

REEVES COUNTY, TEX.

Total fields inspected, 20; infested, 5; number days inspecting, 89.9; number days before finding pink bollworm, 275.8.[1]

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	0.9	1		1
2	14.6	3		3
3	7.9	1		1
4	1.3	1		1
5	6.1	1		1

[1] Covers also Ward County, Tex.

WARD COUNTY, TEX.

Total fields inspected, 103; infested, 1; number days inspecting, 306.6; number days before finding pink bollworm, 275.8.[2]

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	2.5	2		2

[2] Covers also Reeves County, Tex.

PECOS COUNTY, TEX.

Total fields inspected, 33; infested, 2; number days inspecting, 127.6; number of days before finding pink bollworm, 7.7.

Field.	Number days inspecting.	Worms found.	Living.	Dead.
1	1.5	2		2
2	.7	9		9

Number of infested fields by districts.

District.	1917	1918	1919	1920
Hearne	5			
Trinity Bay	156		52	28
Big Bend		5	1	
Pecos Valley		9	1	12
El Paso Valley				19
Carlsbad				2
Total	161	14	54	62

Estimated cotton acreage in infested districts.

Texas.		New Mexico.		Louisiana.	
District.	Acreage.	District.	Acreage.	District.	Acreage
El Paso	15,000	Mesilla	4,500	Cameron	3,000
Pecos Valley	30,000	Carlsbad	15,000	Shreveport	3,000
Big Bend	1,000				
Trinity Bay	20,000				
Total	66,000	Total	19,500	Total	6,000

Total cotton acreage, United States	37,073,000
Total cotton acreage, Texas	11,910,000
Total cotton acreage, Louisiana	1,553,000
Total cotton acreage in infested districts of Texas, Louisiana, and New Mexico	91,500

Summary of shipments of possibly infested material to points in cotton belt outside of Texas, May 11, 1921.

State.	Seed.	Seed cotton.	Hulls.	Lint, linters, and waste.	Mexican cotton.
Alabama	80,000 pounds		122 cars	206 bales, 2 waste.	275 bales.
Arkansas	772 pounds				
Georgia		1 car, 69 sacks, 695 pounds.		853 bales, 6 waste.	1,732 bales
Louisiana	116 cars, 2,811 sacks, 105,196 pounds.	36 cars, 1,812 sacks, 215,562 pounds.	1,921 cars, 451 sacks.	3,849 bales	467 bales.
Mississippi	4 cars, 96 pounds.		226 cars, 580 sacks.	200 bales, 3 waste.	49 bales.
New Mexico			2 cars		
North Carolina				612 bales, 11 waste.	2,255 bales.
Oklahoma	255 pounds		8 cars		
South Carolina				278 bales, 5 waste.	2,072 bales, 3 waste.
Tennessee			227 cars	7,172 bales	
Virginia				1,220 bales	2,091 bales.

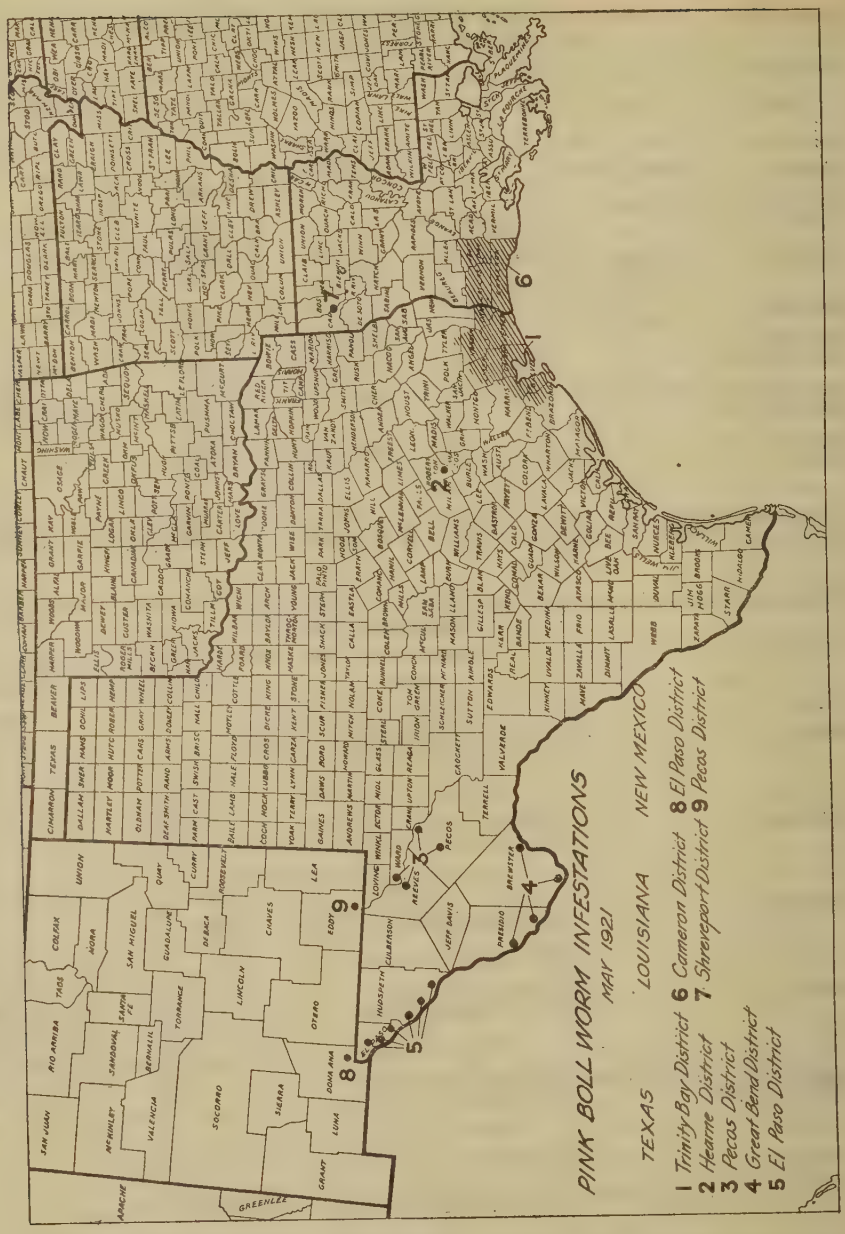
This statement does not include a small number of shipments of little relative importance, as, for instance, a shipment of waste from Houston, Tex., to Tampa, Fla., in 1917.

Summary of seed shipments, crops of 1919 and 1920, from Carlsbad, N. Mex., and Fort Stockton, Tex.

To—	From—	Cars.	Sacks.	Pounds.
Arkansas	Carlsbad, N. Mex., area		5	
	Fort Stockton, Tex., area			
	Total		5	
New Mexico	Carlsbad, N. Mex., area	17	1,547	
	Fort Stockton, Tex., area			
	Total	17	1,547	
Oklahoma	Carlsbad, N. Mex., area	80	8	
	Fort Stockton, Tex., area			
	Total	80	8	
Texas	Carlsbad, N. Mex., area	135	1,247	
	Fort Stockton, Tex., area	20	159	4,000
	Total	155	1,406	4,000
Arkansas, New Mexico, Oklahoma, and Texas.	Carlsbad, N. Mex., area	232	2,807	
	Fort Stockton, Tex., area	20	159	4,000
	Total	252	2,966	4,000

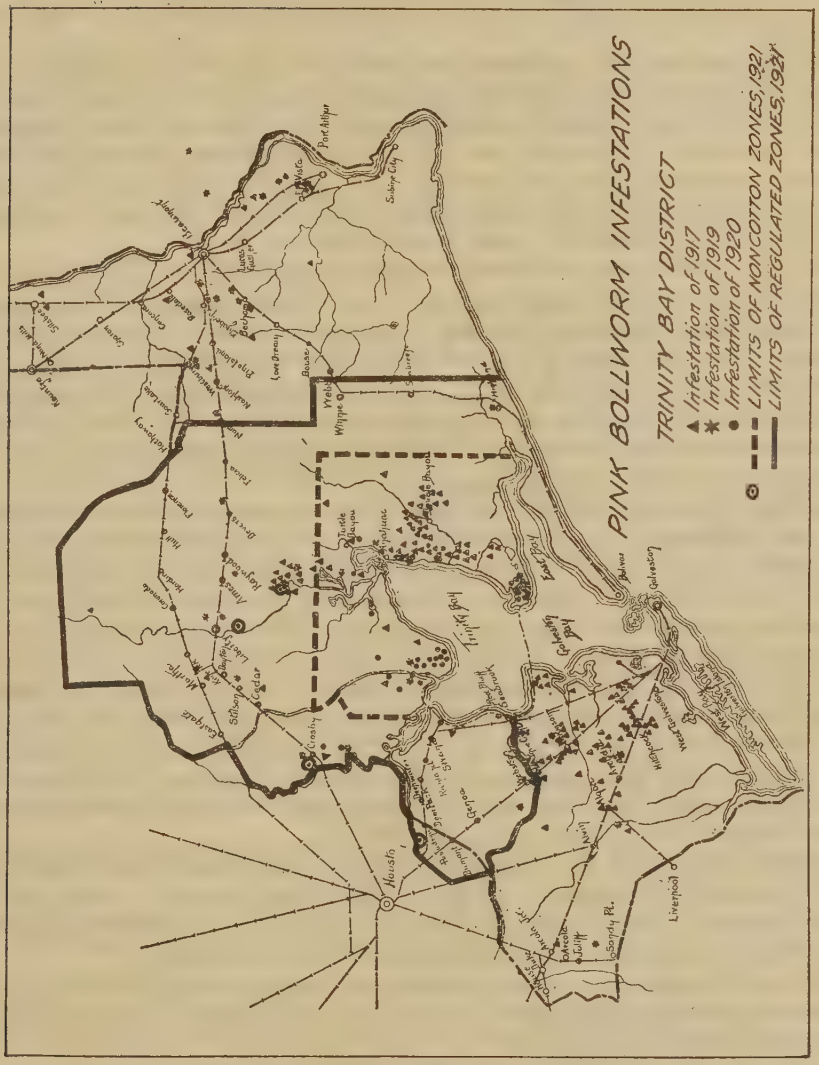
MAPS SHOWING DISTRIBUTION OF THE PINK BOLLWORM.

In connection with the foregoing, charts were distributed indicating (1) the present known distribution of the pink bollworm in the United States, involving the States of Texas, Louisiana, and New Mexico, and (2) the important Trinity Bay district in Texas, indicating the location of infested fields for the years 1917, 1919, and 1920. These maps are reproduceed with the accompanying description.



DISTRIBUTION OF PINK BOLLWORM.

The general map showing distribution should be understood as indicating the location, rather than the extent, of the infestations. In the Trinity Bay district of Texas the actual infestations determined for 1920 are indicated by the black dots on the detailed diagram described below. No infestation is now known in the three marked parishes in the southwestern corner of Louisiana. These parishes were maintained last year as a non-cotton zone, and will be continued substantially as such for 1921. The black dot at Shreveport, La., and the similar dots at various points in Texas and New Mexico indicate the other points where infestation has been found during the last four years. These dots merely indicate the location of the infestation. The size given these dots makes each of them cover an actual geographic area of nearly 10 square miles, whereas the infestation involved is usually incipient, often very difficult to detect, and limited to a single field or fields within a few miles radius. The Hearne, Tex., infestation has been stamped out since 1917, and aside from a few new minor points of infestation the general Pecos region has been pretty thoroughly cleaned up. The Great Bend district has been maintained as a noncotton zone, and is probably now substantially free from the pest.


PINK BOLLWORM INFESTATIONS
TRINITY BAY DISTRICT
▲ Infestation of 1917
✱ Infestation of 1919
● Infestation of 1920
LIMITS OF NONCOTTON ZONES, 1921
LIMITS OF REGULATED ZONES, 1921
Port Arthur
Sabine City
Beaumont
Orange
Lake Charles
Houston
Galveston
Liverpool
Trinity Bay
Galveston Bay
Sabine Lake
Cedar Lake
Sylvan
Cedar
Liberty
Dayton
Anahuac
Baytown
Alvin
Pearland
Angleton
Freeport
Bryan
Navasota
Hempstead
Waller
Tomball
Spring
Conroe
Cleveland
Humble
Kingwood
Huffman
Dickinson
Texas City
Alta Loma
Pearland
Sugar Land
Rosenberg
Richmond
Fulshear
Katy
Brazoria
Angleton
Alvin

Report of the Washington Pink Bollworm Conference.

At the conference relating to the pink bollworm situation, held at Washington, May 16, 1921, attended by representatives of the States of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Arkansas, Oklahoma, New Mexico, Arizona, and California, the following report was unanimously adopted as embodying the opinions of the conference:

(1) We indorse and commend the policies of the Federal Horticultural Board in dealing with the pink bollworm situation in the United States. We wish, furthermore, to express our approval particularly of the work of Dr. W. D. Hunter, who has been in direct charge of the field work in the infested States; his energy, persistence, and tact in dealing with an unusually difficult situation are especially to be commended. To his efforts and to those of the proper State authorities who have worked in cooperation with him, especially in Texas and Louisiana, the other cotton-growing States feel deeply indebted that this cotton pest has not spread more widely since 1917.

(2) It is clear to the conference that the only practicable method of eradicating the pink bollworm is by the continued prohibition of the growth of cotton in infested districts for a period of years. The feasibility of extermination work where conducted according to the methods and maintained for the period of time recommended by the entomologists of the Cotton States and approved by the Federal Horticultural Board is completely demonstrated in the Hearne district, where a noncottoon zone has been maintained since the fall of 1917, and intensive scouting each year thereafter has failed to show any recurrence of the infestation. Furthermore, it is apparent in the Trinity Bay district that the maintenance of a noncotton zone for one year only is not long enough to accomplish extermination.

(3) The conference believes that there is now a possibility of exterminating the pink bollworm, but that this opportunity is one that must be taken prompt advantage of. On the other hand, we feel that the continuance of the infestation in any areas under a regulated system is fraught with grave danger to the entire cotton industry. Therefore we believe that the present establishment of regulated areas in west Texas and New Mexico should be considered only as a temporary arrangement, to be conducted only so long as may be necessary for appropriations to be made to maintain this district as a noncotton zone. In the meantime, also, we would recommend that efforts be made to secure the cooperation of the Mexican authorities in maintaining a noncotton zone on the Mexican side of the border. In order to provide further safeguard against the introduction of infestation, we believe that the Immigration Service along the Mexican border should be so strengthened as to secure the movement of all laborers coming from Mexico into the United States through the proper points of entry, where adequate inspections may be maintained.

(4) In dealing with the pink bollworm situation, adequate provision should be made in State laws for a technical commission, which should be vested with full authority in establishing the fact of infestation, as well as in exercising wide discretion in relation to the fixing of the limits of any areas which may be placed in noncotton zones or regulated zones, such zones to be continued in force automatically until changed by the act of the commission.

(5) With reference to States bordering on Mexico, the conference believes that action should be based upon infestation conditions prevailing on the Mexican as well as on the American side, and in such action both Federal and State authorities should cooperate.

(6) We believe that inasmuch as the work of eradication is undertaken for the benefit of the country at large, as well as for the direct benefit of the States wherein infestation may be found, that the funds utilized in maintaining noncotton zones should be supplied jointly by the State and Federal Governments, in accordance with precedents already established in the case of the work against tuberculosis and the foot-and-mouth disease of cattle.

(7) We hereby express our appreciation of the present attitude of the citizens of Louisiana and Texas in favor of extermination work, as reported by their representatives in this conference. We are gratified with the assurance we have here received that it is proposed, through a special session of the Texas Legislature, to be held in July, 1921, to strengthen and make fully effective the eradication work now under way, or to be hereafter instituted in that State.

Virginia, W. J. Schoene; North Carolina, Franklin Sherman, jr., State entomologist; South Carolina, H. W. Barre, director experiment station; A. F. Conradi, entomologist. Georgia, A. C. Lewis, State entomologist; Ira W. Williams, general agent. Florida, Wilmon Newell, plant commissioner; J. H. Montgomery, quarantine inspector. Alabama, J. F. Duggar, Alabama Polytechnic Institute; W. E. Hinds, entomologist. Mississippi, Frank Roberson, attorney general; R. W. Harned, entomologist. Louisiana, Jos. E. Ransdell, United States Senator; Harry D. Wilson, commissioner of agriculture. Texas, W. B. Bizzell, president A. and M. College of Texas; George B. Terrell, commissioner of Agriculture. Arkansas, George G. Becker, chief inspector, State plant board; Oklahoma, C. E. Sanborn, entomologist; New Mexico, John A. Happer; Arizona, Don C. Mote, State entomologist; California, F. W. Read, California State department of agriculture.

FRANK ROBERSON,
Chairman of Committee Designated by State Delegations to Formulate a Report for Approval of Conference.

[Press notice of Washington pink-bollworm conference, May 17, 1921.]

The pink-bollworm conference, called by the United States Department of Agriculture in Washington for May 16, for the purpose of considering measures to be taken to eradicate from the United States this newly introduced cotton pest, was attended by representatives from 14 States. The delegates to the conference included appointees by the governors and representatives of the important farm, cotton, and educational associations of these States. A committee nominated by the State delegations formulated a report which was unanimously approved by the conference.

The conference recognized that the pink bollworm presents the most serious menace that has ever confronted the cotton industry of this country, and believed, from the existing status of the pest and from the evidence presented, that there is a reasonable opportunity, with adequate Federal and State cooperation, of eradicating it. The conference indorsed the policy of the Department of Agriculture looking to eradication.

The conference recommended that, in view of the fact that this pest is a menace to the entire cotton industry of the country, the burden of its control should be shared by the Federal Government with the States actually infested.

The conference recommended further that the States concerned and other States provide legislation which will give ample authority through the agency of noncotton and regulated zones for such regional control as necessary to effect extermination.

The delegates from Texas, representing the important farm interests of that State, promised full support in securing adequate legislation and cooperation on the part of Texas.

AUTHORITY FOR FEDERAL PARTICIPATION IN COST OF NONCOTTON ZONES REQUESTED.

The following draft of joint resolution was submitted to Mr. Norris, chairman of the Committee on Agriculture and Forestry, June 8, 1921.

[67th Congress, 2d session. S. J. Res. 72.]

IN THE SENATE OF THE UNITED STATES.

JUNE 13, 1921.

Mr. NORRIS introduced the following joint resolution, which was read twice and referred to the Committee on Agriculture and Forestry.

JOINT RESOLUTION.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, when any State shall have enacted legislation and taken measures, including the establishment and enforce-

ment of noncotton zones, adequate, in the opinion of the Secretary of Agriculture, to eradicate the pink bollworm in any area thereof actually infested, or threatened, by such pest, the said Secretary, under regulations to be prescribed by him, is authorized, out of the appropriation of $554,840 for "Eradication of Pink Bollworm" made by the agricultural appropriation act of March 3, 1921, to utilize not to exceed $200,000, [available until expended] [1] in reimbursing such State for expenses incurred by them in compensating any farmer for his loss due to the enforced nonproduction of cotton within said zones: *Provided*, That such reimbursement of any State shall be based upon the [fair rental value] [1] actual and necessary loss [2] suffered by the owner of said land; that such reimbursement shall not exceed one-third the amount actually paid by the State to any farmer, and in no event shall exceed $5 per acre; and that no reimbursement shall be made in respect of any farmer who has not complied in good faith with all quarantine and control regulations prescribed by said Secretary of Agriculture and such State relative to the pink bollworm.

RESOLUTION PASSED AT PINK BOLLWORM CONFERENCE, AUSTIN, TEX., MAY 27, 1921.

The committee begs to report as follows:

Whereas, We recognize the imperative necessity of safeguarding the State of Texas and the entire cotton belt of the South against a spread of the present infestation of Texas and Louisiana by the pest known as the pink bollworm, which will imperil the cotton industry of the South, and to assist in effectuating this purpose we recognize that additional legislation is needed, the existing laws of Texas being deficient in many particulars, now therefore be it resolved as follows:

1. That we respectfully request the Governor of Texas to submit this subject to the next special session of the Legislature of Texas, which is to convene at an early date, for such remedial legislation as shall be deemed necessary to enact.

2. That the chairman of this meeting be directed and authorized to send to each of the Texas Congressmen a telegram asking for such Federal assistance as may be obtainable through Congress in the extermination of the pink bollworm in infested areas as well as the prevention of its admission from Mexico.

3. Recognizing the fact that the pink bollworm is not indigenous to Texas or to the South, and that it has spread from infested areas in Mexico outside of the border of the United States, we regard the prevention of its admission, and the work of extermination a proper matter for Federal control and assistance, we feel justified in asking not only the aid of our State but the cooperation of the Nation, therefore we feel that we can consistently urge upon Congress proper appropriation to assist in bearing the expense of the extermination of this pest as well as the compensation of those who may be deprived of the use of their lands and properties for cotton purposes.

4. Recognizing as we do the vast importance of the cotton industry of Texas we urgently call upon all commercial or other State-wide organizations in Texas for their cooperation, and support in endeavoring to secure appropriate legislation, both Federal and State, and the chairman of this meeting is authorized and directed, with the advice and consent of such organizations, to appoint a committee of not exceeding 15 members from different sections of Texas to take charge of all activities in connection with this matter, and to

[1] Omitted in bill as passed.
[2] Inserted in bill as passed.

urge the importance of appropriate and prompt measures upon the part of the Federal Congress and the State legislature.

J. Z. George, Texas Chamber of Commerce, Dallas, Tex.
J. V. Vandenberge, Rural Land Owners' Association, Victoria, Tex.
R. C. Dickerson, Texas Cotton Association, Waco, Tex.
D. T. Iglehart, Texas Compress Association, Austin, Tex.
Sam H. Dixon, Farmers' Union, Austin, Tex.
Charles H. Alvord, Chamber of Commerce, San Antonio, Tex.
I. N. McBride, Marketing & Warehouse Department, Austin, Tex.
Allen Early, Texas Grain Dealers' Association, Amarillo, Tex.
A. T. Chaney, Farm Labor Union of America, Bonham, Tex.
Olney Davis, Texas Cotton Ginners' Association, Plano, Tex.
Eldred McKinnon, Bankers' Association, Austin, Tex.
W. L. Stallings, Chamber of Commerce, Houston, Tex.
J. E. Boog-Scott, Texas Farm Bureau Federation, Coleman, Tex.
W. D. Hunter, U. S. Department of Agriculture, Houston, Tex.
George B. Terrell, State Department of Agriculture, Austin, Tex.
Eugene P. Humbert, Texas Cottonseed Breeders' Association, Waxahachie, Tex.
A. D. Mebane, Texas Cotton Breeders' Association, Lockhart, Tex.
A. J. Storey, First National Bank, Lockhart, Tex.
John T. Storey, Lockhart National Bank, Lockhart, Tex.
H. A. Wroe, Bankers' Association, Austin, Tex.
W. W. Preston, Lockhart Hardware Co., Lockhart, Tex.
R. F. Crow, Texas Cottonseed Crushers' Association, Houston, Tex.

Note.—These resolutions were given formal approval by the board of directors of the Texas Chamber of Commerce in a resolution adopted June 16, 1921.

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADVISABILITY OF EXTENDING THE PINK BOLLWORM QUARANTINE TO THE STATE OF NEW MEXICO.

The Secretary of Agriculture has information that the pink bollworm (*Pectinophora gossypiella*) a dangerous insect, not heretofore widely prevalent within and throughout the United States, occurs in Dona Ana County, N. Mex.

It appears necessary, therefore, to consider the advisability of quarantining the State of New Mexico in accordance with the Plant Quarantine Act of August 20, 1912, (37 Stat., 315) as amended by the Act of Congress approved March 4, 1917 (39 Stat., 1134, 1165) and of placing such restrictions and prohibitions on the movement from this State of cotton lint, cotton seed, seed cotton, cottonseed cake, meal and all other cottonseed products except oil, and providing for such inspection, cleaning and disinfection of railway cars and other vehicles and freight, express, baggage or other materials as a condition of interstate movement as shall be deemed necessary to prevent the spread by such means and agencies of the pink bollworm into other States.

Notice is therefore hereby given that a public hearing will be held at the Department of Agriculture, Washington, D. C., Room 11, Federal Horticultural Board, at 10 o'cloock, a. m., December 17, 1920, in order that any person interested in the proposed quarantine may appear and be heard either in person or by attorney.

REASONS FOR CONSIDERING QUARANTINE ACTION.

The necessity for considering quarantine action is the finding of the pink bollworm in Dona Ana County, N. Mex., in the vicinity of El Paso, Tex., and the

need therefore of extending the regulations now in force against certain counties in Texas and Louisiana under quarantine 46 to Dona Ana County, N. Mex. The adjoining county of El Paso in Texas is now under such regulation under this quarantine. The restrictions under the quarantine as to such regulated counties apply to the movement and utilization of cotton and cotton products for the purpose of preventing the scattering or spreading of this pest. The movement of lint is safeguarded by being limited to certain routes and ports of export, and the utilization of seed and hulls is also safeguarded.

Up to November of this year no pink bollworm had been found in the vicinity of El Paso either in New Mexico or in Texas, but the likelihood of this insect making an entry at this point was recognized on account of the constant arrival at Juarez of Mexican cars fouled with cotton seed in which living pink bollworm larvæ were frequently found. This risk had led to the restrictions in force as to El Paso County. The limitation of the restrictions of the Federal quarantine of New Mexico, if issued, to Dona Ana County will necessarily be conditioned, as they are in Texas, on the promulgation of a quarantine by the State of New Mexico supplementing the Federal quarantine and controlling the movement of cotton and cotton products from the invaded district except in accordance with the conditions of the Federal regulations.

There is also under way an effort to secure cooperation on the part of Mexico to provide for the cleaning of all Mexican cars at some point in the interior of Mexico, to avoid as far as possible in future the risk of bringing infested seed in such cars to Juarez, within a distance of easy flight on the part of the mature insect to cotton fields on the American as well as the Mexican side of the river.

NOTE.—This notice was omitted from the preceding number of the Service and Regulatory Announcements and is reproduced here to complete the record.

NURSERY STOCK, PLANT, AND SEED QUARANTINE.

NOTICE OF QUARANTINE NO. 37, WITH REGULATIONS (REVISED).

[Effective on and after Aug. 1, 1921.]

INTRODUCTORY NOTE.

In issuing this revised edition of Quarantine No. 37 and regulations thereunder no change is made in the quarantine. The important changes in the regulations are in connection with Regulations 2 and 7. The requirement will hereafter be made, with respect to importations under Regulation 2, that they be free from sand, soil, or earth. Under Regulation 7, inspection must hereafter be made at the time of packing of all nursery stock and other plants and seeds, and the certificate of inspection shall include certification of packing materials and that the plants have been washed and are free from soil. This modification of Regulation 7 has been enforced under a special order since March 7, 1921. Under Regulation 1 a number of definitions have been added and a few unimportant verbal changes have been made in other regulations. This revision supersedes the edition of February 28, 1920, of the rules and regulations promulgated under Quarantine No. 37, effective June 1, 1919.

The classes of nursery stock and other plants and seeds which may be entered and the conditions of such entry under this quarantine are indicated in Regulations 2, 3, 14, and 15.

Regulation 2 provides that fruits, vegetables, cereals, and other plant products for or capable of propagation, intended for medicinal, food, or manufacturing purposes, and field, vegetable, and flower seeds may be imported without permit or other restrictions.

Regulation 3 enumerates the classes of plants which may be imported under open permits valid until revoked on compliance with the other requirements of the regulations.

Regulation 14 provides for the importation under special limited permits, valid only for the kinds and quantities of plants indicated therein, of nursery stock and other plants and seeds not covered by Regulations 2 and 3 for the purpose of keeping the country supplied with new varieties and necessary propagating stock.

Regulation 15 provides for the importation from countries contiguous to the United States of specific classes of nursery stock and other plants and seeds which can be considered as peculiar to such contiguous countries.

Forms of application and notices with respect to importations of nursery stock and other plants and seeds under Regulations 3, 14, and 15 will be supplied on request.

This quarantine does not affect the status of nursery stock and other plants and seeds covered by special quarantines and other restrictive orders now in force, nor does it apply to importations of nursery stock and other plants and seeds by the United States Department of Agriculture for experimental or scientific purposes.

The regulations governing the entry of the classes of plants listed in Regulation 3 are similar to those hitherto in force and take into account the classification of countries into (1) those maintaining inspection and certification of nursery stock in accordance with the requirements of the plant quarantine act, and (2) countries which have not made provision for such compliance with the act. (See Appendix B.)

C. L. Marlatt,
Chairman, Federal Horticultural Board.

NOTICE OF QUARANTINE NO. 37.

NURSERY STOCK, PLANT, AND SEED QUARANTINE.

The fact has been determined by the Secretary of Agriculture, and notice is hereby given, that there exist in Europe, Asia, Africa, Mexico, Central and South America, and other foreign countries and localities certain injurious insects and fungous diseases new to and not heretofore widely distributed within and throughout the United States, which affect and are carried by nursery stock and other plants and seeds, the words "nursery stock and other plants and seeds" including, wherever used in this notice and the rules and regulations supplemental hereto, field-grown florists' stock, trees, shrubs, vines, cuttings, grafts, scions, buds, fruit pits and other seeds of fruit and ornamental trees or shrubs, also field, vegetable, and flower seeds, bedding plants, and other herbaceous plants, bulbs, and roots, and other plants and plant products for, or capable of, propagation.

Now, therefore, I, D. F. Houston, Secretary of Agriculture, under the authority conferred by the act of Congress approved August 20, 1912 (37 Stat., 315), do hereby declare that it is necessary, in order to prevent the further introduction into the United States of injurious insect pests and fungous diseases, to forbid, except as provided in the rules and regulations supplemental hereto, the importation into the United States of nursery stock and other plants and seeds from the foreign countries and localities named and from any other foreign locality or country.

On and after June 1, 1919, and until further notice, by virtue of said act of Congress approved August 20, 1912, the importation of nursery stock and other plants and seeds from the above named and all other foreign countries and localities, except as provided in the rules and regulations supplemental hereto, is prohibited.

This quarantine shall not apply to nursery stock and other plants and seeds covered by special quarantines and other restrictive orders now in force, a list of which is given in Appendix A of the rules and regulations supplemental

hereto, nor to the importation by the United States Department of Agriculture of nursery stock and other plants and seeds for experimental or scientific purposes.

Done in the District of Columbia this 18th day of November, 1918.

[SEAL.] Witness my hand and the seal of the United States Department of Agriculture.

D. F. HOUSTON,
Secretary of Agriculture.

Rules and Regulations Supplemental to Notice of Quarantine No. 37, Governing the Importation of Nursery Stock and Other Plants and Seeds into the United States.

[Effective on and after Aug. 1, 1921, and superseding the regulations heretofore issued governing the importation of nursery stock.]

Regulation 1. Definitions.

For the purposes of these regulations the following words, names, and terms shall be construed, respectively, to mean:

(*a*) Nursery stock and other plants and seeds: Field-grown florists' stock, trees, shrubs, vines, cuttings, grafts, scions, buds, fruit pits and other seeds of fruit and ornamental trees or shrubs; also field, vegetable, and flower seeds, bedding plants, and other herbaceous plants, bulbs, and roots, and other plants and plant products for, or capable of, propagation.

(*b*) Field seeds: Seeds of cereal, forage, and other field crops.

(*c*) Vegetable seeds: Seeds of garden vegetables and other truck crops.

(*d*) Flower seeds: Seeds of annual, biennial, or even perennial flowering plants which are essentially herbaceous, namely, plants which perish annually down to, and sometimes including the root (i. e., soft, succulent plants).

(*e*) Seeds of hardy perennial plants: Seeds of woody or other plants which are not herbaceous and are either of a hardy and woody growth or are not killed to the ground in temperate zones.

(*f*) New varieties: A new variety is understood to mean a novelty, i. e., a new plant, variety, strain, type, or form, either recognized by the trade as such or so listed or described in catalogues, trade journals, or other publications, or duly and properly certified as such by the originator or introducer.

(*g*) Necessary propagating stock: Stock of old or standard varieties not available in this country and imported for the multiplication of the plants in question as a nursery or florist enterprise as distinguished from importations for the immediate or ultimate sale of the stocks actually imported.

(*h*) Bulbs and corms: Bulb—an enlarged subterranean bud with fleshy scales or coats (for example, tulips, Spanish iris); corm—an enlarged fleshy base of a stem, bulb-like but solid (for example, gladiolus, cyclamen, crocus).

(*i*) Plant roots, rhizomes, tubers: Plant roots—the more or less fibrous roots of any plant (for example, fruit seedlings, ornamentals, lily of the valley pips); Rhizomes—a root stock or subterranean stem, usually fleshy and rooted at the nodes (for example, German iris, aspidistra); Tuber—a thickened, fleshy, subterranean branch having numerous buds or eyes (for example, potatoes).

Regulation 2. Nursery stock and other plants and seeds for which permit is not required.

The following classes of nursery stock and other plants and seeds, not including, however, the particular nursery stock and other plants and seeds named in Appendix A, which are governed by special quarantines and other restrictive orders now in force, nor such as may hereafter be made the subject of special quarantines, when free from sand, soil, or earth, may be imported without permit or other compliance with these regulations:

(1) Fruits, vegetables, cereals, and other plant products imported for medicinal, food, or manufacturing purposes.

(2) Field, vegetable, and flower seeds.

Regulation 3. Nursery stock and other plants and seeds for which permit is required.

The following nursery stock and other plants and seeds, not including, however, those named in Appendix A, which are governed by special quarantines and other restrictive orders now in force, nor such as may hereafter be made the subject of special quarantines, may be imported from countries which maintain inspection (see Appendix B), under permit upon compliance with these regulations, but, where a particular purpose is specified, for that purpose and no other:

(1) Lily bulbs, lily of the valley, narcissus, hyacinths, tulips, and crocus.
(2) Stocks, cuttings, scions, and buds, of fruits for propagation.
(3) Rose stocks for propagation, including Manetti, Multiflora, Brier Rose, and Rosa Rugosa.
(4) Nuts, including palm seeds, for propagation.
(5) Seeds of fruit, forest, ornamental, and shade trees, seeds of deciduous and evergreen ornamental shrubs, and seeds of hardy perennial plants.

Importations of nursery stock and other plants and seeds specified in this regulation, from countries not maintaining inspection, may be made under permit upon compliance with these regulations in limited quantities for experimental purposes only, but this limitation shall not apply to tree seeds.

Regulation 4. Application for permits for importation of nursery stock and other plants and seeds.[1]

Persons contemplating the importation of nursery stock and other plants and seeds the entry of which is permitted under Regulation 3 shall first make application to the Federal Horticultural Board for a permit, stating in the application the exact designation of the nursery stock and other plants and seeds to be imported, the name and address of the exporter, the country and locality where grown, the port of entry, and the name and address of the importer in the United States to whom the permit should be sent.

Applications for permits should be made in advance of the proposed shipments, but if, through no fault of the importer, a shipment should arrive before a permit is received the importation will be held in customs custody at the risk and expense of the importer for a period not exceeding 20 days pending the receipt of the permit.

Applications may be made by telegraph, in which case the information required above must be given.

With the exception of the products enumerated under Regulation 2, permits are required for nursery stock and other plants and seeds entering the United States for immediate transportation in bond to foreign countries.

Applications for permit to import nursery stock and other plants and seeds from countries which do not maintain inspection must contain a definite statement of the quantity to be imported.

Regulation 5. Delivery in bond pending receipt of permit will be allowed for shipments from countries maintaining inspection.

If the required permit be not at hand upon arrival of a shipment from a country which maintains inspection, and such shipment meets the requirements of Regulations 7 and 8, it may be delivered to the importer, consignee, or agent for the proper care thereof upon the filing of a bond with approved sureties in double the invoice value (but in no case less than $100), the condition of which shall be that the importation shall not be removed from the port of entry but shall be redelivered to the collector of customs within 20 days from the date of arrival at the port, unless in the meantime the collector is presented with a proper permit; or, if the importer, consignee, or agent shall so elect, the goods may, so far as the Department of Agriculture is concerned, be retained in customs custody for a period not exceeding 20 days, pending the issuance of the permit, wholly at the risk and expense of the importer.

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[1] A post-office order dated May 27, 1913, as amended Dec. 16, 1913, prohibits the importation by mail of all growing or living plants, seeds, and other plant products for propagation, except field, vegetable, and flower seeds. All importations of nursery stock and other plants and seeds, other than field, vegetable, and flower seeds, must be made by freight or express.

Regulation 6. Issuance of permits.

On approval by the Secretary of Agriculture of an application for the importation of nursery stock and other plants and seeds a permit will be issued in quadruplicate. One copy will be furnished to the applicant for presentation to the customs officer at the port of entry, one copy will be mailed to the collector of customs and one to the inspector of the Department of Agriculture at the port of entry, and the fourth will be filed with the application.

Permits shall be valid until revoked, unless otherwise specified therein, and will be issued for the ports of Boston, New York, Newark, San Francisco, Seattle, and such other ports as may from time to time be approved by the Federal Horticultural Board. The permit will be addressed to the collector of customs at the port for which it is issued.

Regulation 7. Conditions of entry: Inspection, certification, and marking; freedom from sand, soil, or earth, and approval of packing material.

The importation of nursery stock and other plants and seeds from countries which maintain inspection will not be allowed unless the invoice is accompanied by an original certificate, and unless each container bears a copy certificate, issued by a duly authorized official of the country from which it is exported, stating that the nursery stock and other plants and seeds covered by the certificate have been thoroughly inspected by him or under his direction at the time of packing, and found, or believed to be, free from injurious plant diseases and insect pests.

All nursery stock and other plants and seeds offered for import must be free from sand, soil, or earth, and all plant roots, rhizomes, tubers, etc., must be washed to thoroughly free them from such sand, soil, or earth, and must be so certified by the duly authorized inspector of the country of origin: *Provided*, That sand, soil, or earth may be employed for the packing of bulbs and corms when such sand, soil, or earth has been sterilized or otherwise safeguarded in accordance with the methods prescribed by the Federal Horticultural Board and is so certified by the duly authorized inspector of the country of origin. The use of such sand, soil, or earth as packing for plants other than bulbs and corms is not authorized.

All packing materials employed in connection with importations of nursery stock and other plants and seeds are subject to approval as to such use by the Federal Horticultural Board. Such packing material must not previously have been used as packing or otherwise in connection with living plants and except as provided in the preceding paragraph for bulbs and corms must be free from sand, soil, or earth, and must be certified as meeting these conditions by the duly authorized inspector of the country of origin.[1]

Nursery stock and other plants and seeds from countries which do not maintain inspection shall not be delivered to the importer or consignee until they have been examined by an inspector of the Department of Agriculture and found to be free from plant diseases and insect pests, or, if infested, capable in the judgment of the inspector of being adequately safeguarded by disinfection. All importations under this paragraph must also comply with the disinfection requirement of Regulation 9. Nursery stock and other plants and seeds inspected as provided herein which are found to be carrying any plant disease or insect pest, and which in the judgment of the inspector can not be cleaned by disinfection or treatment, shall be refused entry. All charges incident to inspection and disinfection, other than the services of the inspector, shall be paid by the importer.

If a package of nursery stock and other plants and seeds offered for entry includes any prohibited article, or if any of the plants have not been freed from earth, the entire package may be refused entry.

Each case, box, or other container or covering of nursery stock and other plants and seeds offered for entry shall be plainly and correctly marked to show the number of the permit, the general nature and quantity of the contents, the district or locality and country where grown, the name and address of the exporter, and the name and address of the consignee.

Regulation 8. Foreign certificate of inspection.

Each certificate and copy certificate shall give the date of inspection, name of the grower or exporter, the district or locality and the country where grown,

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[1] For detailed instructions relative to packing materials, including sterilized soil for bulbs and corms, see HB–132, revised June 8, 1921.

and a statement that the nursery stock and other plants and seeds have been inspected by a duly authorized official and found, or believed to be, free from insect pests and plant diseases. The original certificate shall be signed and sealed by, and the copy certificate shall bear the seal and the actual or reproduced signature of, a responsible inspection official for the country of origin.

Lists of officials in foreign countries authorized to inspect nursery stock and other plants and seeds, giving their names and official designations, will be furnished to collectors of customs through the Secretary of the Treasury.

Regulation 9. Disinfection a condition of entry.

Nursery stock and other plants and seeds imported under Regulation 3 shall be subject, as a condition of entry, to such disinfection as shall be required by the inspector of the Department of Agriculture. When disinfection is required, the nursery stock and other plants and seeds involved will be delivered to the permittee for disinfection upon the filing with the collector of customs of a bond in the amount of $5,000, or in an amount equal to the invoice value if such value be less than $5,000, but in no case to be less than $100, with approved sureties, the condition of which shall be that the nursery stock and other plants and seeds shall be disinfected under the supervision of an inspector of the Department of Agriculture; that no case or other container thereof shall be broken, opened, or removed from the port of entry unless and until a written notice is given to such collector by an inspector of the Department of Agriculture that the nursery stock and other plants and seeds have been properly disinfected; and that the importation shall be redelivered to the collector of customs within 40 days from arrival at the port of entry.

Regulation 10. Notice of arrival by permittee.

Immediately upon arrival of the nursery stock and other plants and seeds at the port of entry, the permittee shall submit in duplicate notice to the Secretary of Agriculture, through the collector of customs, on forms provided for that purpose, stating the number of the permit, date of entry, name of ship or vessel, the country and locality where grown, name of the foreign shipper, number of cases and marks and numbers on cases, the general nature and quantity of the nursery stock and other plants and seeds, the port of entry, and the name of the importer or broker at the port of entry.

Regulation 11. Notice of shipment by permittee.

After entry of the nursery stock and other plants and seeds and before removal from the port of entry for each separate shipment or consignment thereof the permittee shall notify the Secretary of Agriculture in duplicate, on forms provided for that purpose, stating the number of the permit, the date of entry, the port of entry, the customs entry number, name and address of the consignee to whom it is proposed to forward the shipment, the general nature and quantity of the nursery stock and other plants and seeds, the number of cases or other containers included in the shipment, and the case or container numbers and marks, together with the probable date of delivery for and route of transportation. A separate report is required for each ultimate consignee.

At the same time a copy of the notice to the Secretary of Agriculture shall be sent by the permittee to the duly authorized inspector or other officer of the State, Territory, or District to which the nursery stock and other plants and seeds are to be shipped. A list of such inspectors and officers is appended.

Should a consignee named in such a notice ship or deliver for shipment to any other State, Territory, or District such nursery stock and other plants or seeds before they have been inspected by a duly authorized State, Territorial, or District inspector or officer, he shall, prior to such shipment, give like notices to the Secretary of Agriculture and to the duly authorized inspector or other officer of the State, Territory, or District to which the nursery stock and other plants and seeds are to be reshipped.

Nursery stock and other plants and seeds which have been once inspected and passed by a duly authorized State, Territorial, or District inspector or other officer, will be allowed to move interstate without restrictions other than those imposed on the interstate movement of domestic nursery stock.

Regulation 12. Marking a condition of interstate shipment of nursery stock and other plants and seeds not inspected.

No person shall ship or deliver for shipment from one State, Territory, or District of the United States into any other State, Territory, or District any im-

ported nursery stock and other plants and seeds, the case, box, package, crate, bale, or bundle whereof is not plainly marked so as to show the general nature and quantity of the contents, the name and address of the consignee, and the country and locality where grown, unless and until such imported nursery stock and other plants and seeds have been inspected and passed by the proper official of a State, Territory, or District of the United States.

Regulation 13. Cancellation of permits for violation of regulations.

Permits may be canceled and further permits refused for the importation of the products of any grower or exporter who has violated the Plant Quarantine Act or any rules and regulations promulgated thereunder, or for the importation of the products of any country whose inspection is found by the Federal Horticultural Board as the result of its examinations of importations therefrom to be merely perfunctory, or for the failure of a permittee to give any notice required by these rules and regulations, or for the giving of a false or incomplete notice, or the mislabeling of any shipment with intent to evade any provision of the Plant Quarantine Act or any rules and regulations thereunder.

Regulation 14. Special permits for importation in limited quantities of prohibited stock.

Application may be made to the Secretary of Agriculture for special permits for the importation, in limited quantities and under safeguards to be prescribed in such permits, of nursery stock and other plants and seeds not covered by the preceding regulations, for the purpose of keeping the country supplied with new varieties and necessary propagating stock: *Provided*, That this shall not apply to nursery stock and other plants and seeds covered by special quarantines and other restrictive orders now in force, nor to such as may hereafter be made the subject of special quarantines. A list of nursery stock and other plants and seeds covered by special quarantines and other restrictive orders now in force is given in Appendix A of these regulations.

The requirements of Regulations 7, 8, 9, and 10, with respect to inspection, certification, marking, freedom from sand, soil, or earth, packing materials, disinfection, and notice of arrival shall apply also to importations authorized under special permits.

Regulation 15. Permits for the importation of otherwise prohibited stock from foreign countries contiguous to the United States.

When it is deemed by the Secretary of Agriculture that the importation from countries contiguous to the United States of any class or classes of nursery stock and other plants and seeds the entry of which is not otherwise provided for by these regulations will not be attended by serious risk to the agriculture, horticulture, or floriculture of the United States, permits may be issued, on application, authorizing the entry of such nursery stock and other plants and seeds under such safeguards as may be prescribed in the permits: *Provided*, That importations under this regulation shall be limited to specific classes of nursery stock and other plants and seeds which can be considered as peculiar to or standard productions of such contiguous countries, and not mere reproductions of imported stock from other foreign countries: *Provided further*, That this shall not apply to nursery stock and other plants and seeds governed by special quarantines and other restrictive orders, other than quarantine 37, now in force, nor to such as may hereafter be made the subject of special quarantines: *Provided further*, That in addition to the certificate required by regulation 7, the invoice covering nursery stock and other plants and seeds offered for entry under this regulation must be accompanied by a certificate of a duly authorized official of the country of origin, stating that the nursery stock and other plants and seeds proposed to be exported to the United States have been produced or grown in the country from which they are proposed to be exported.

The above rules and regulations are hereby adopted and shall be effective on and after August 1, 1921, and shall supersede the rules and regulations governing the importation of nursery stock into the United States, which were promulgated to take effect on and after June 1, 1919.

E. D. Ball,
Acting Secretary of Agriculture.

June 10, 1921.

Appendix A.

The entry of the following plants and plant products is prohibited or restricted by specific quarantines and other restrictive orders now in force:

(*a*) Irish potatoes from all countries except the Dominion of Canada and Bermuda. Irish potatoes may be imported from any foreign country into the Territories of Hawaii and Porto Rico, for local use only, free from any restrictions under the plant quarantine act.

(*b*) Oranges, sweet limes, grapefruit, mangoes, achras sapotes, peaches, guavas, and plums from the Republic of Mexico.

(*c*) All five-leafed pines and all species and varieties of the genera *Ribes* and *Grossularia* from each and every country of Europe and Asia and from the Dominion of Canada and Newfoundland.

(*d*) Cotton seed (including seed cotton) of all species and varieties, and cottonseed hulls, from any foreign locality and country.

(*e*) Seeds of the avocado or alligator pear from Mexico and the countries of Central America.

(*f*) Living canes of sugar cane or cuttings or parts thereof from all foreign countries. There are no Federal restrictions on the entry of such materials into Hawaii and Porto Rico.

(*g*) All citrus nursery stock, including buds, scions, and seeds, from all foreign localities and countries.

(*h*) All pines not included in paragraph (*c*) from all European countries and localities.

(*i*) Seed and all other portions in the raw or unmanufactured state of Indian corn or maize (*Zea mays* L.), and the closely related plants, including all species of Teosinte (*Euchlaena*), Job's tears (*Coix*), *Polytoca*, *Chionachne*, and *Sclerachne*, from southeastern Asia (including India, Siam, Indo-China, and China), Malayan Archipelago, Australia, New Zealand, Oceania, Philippine Islands, Formosa, Japan, and adjacent islands.

(*j*) *All* species and varieties of citrus fruits from eastern and southeastern Asia (including India, Siam, Indo-China, and China), the Malayan Archipelago, the Philippine Islands, Oceania (except Australia, Tasmania, and New Zealand), Japan (including Formosa and other islands adjacent to Japan), and the Union of South Africa.

(*k*) All varieties of sweet potatoes and yams (*Ipomoea batatas* and *Dioscorea* spp.) from all foreign countries and localities.

(*l*) All species or varieties of banana plants (*Musa* spp.) from all foreign countries and localities.

(*m*) Fruits of the avocado or alligator pear and avocado nursery stock less than 18 months of age from Mexico and the countries of Central America.

(*n*) Cotton from all foreign countries and localities.

(*o*) Cottonseed oil from Mexico and cottonseed cake, meal, and all other cottonseed products, except oil, from all foreign countries.

(*p*) All varieties of bamboo seed, plants, or cuttings thereof, capable of propagation, including all genera and species of the tribe *Bambuseae*, from all foreign countries.

(*q*) Seed or paddy rice, wheat, oats, barley, and rye from Australia, India, Japan, Italy, France, Germany, Belgium, Great Britain, Ireland, and Brazil.

(*r*) Indian corn or maize, broom corn, sweet sorghums, grain sorghums, Sudan grass, Johnson grass, sugar cane, pearl millet, napier grass, teosinte, and Job's tears, in the raw or unmanufactured state, from all foreign countries and localities.

(*s*) Indian corn or maize from Mexico.

(*t*) Stocks, cuttings, scions, and buds of fruits from Asia, Japan, Philippine Islands, and Oceania (including Australia and New Zealand).

(*u*) Fruits and vegetables in the raw or unprocessed state from Cuba, the Bahamas, Jamaica, Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java.

Appendix B.

LIST OF THE FOREIGN COUNTRIES WHICH HAVE PROVIDED FOR INSPECTION AND CERTIFICATION IN CONFORMITY WITH THE REQUIREMENTS OF THE PLANT QUARANTINE ACT OF AUGUST 20, 1912.

Australia.	Belgium.	Canada.
Azores.	Bermuda.	Cuba.
Barbados.	British Guiana.	Denmark.

England.
France.
Germany.
Guatemala.
Holland.
Hongkong.
Ireland.
Italy.
Jamaica.
Japan.
Leeward Islands:
Antigua.
St. Christopher-Nevis.
Dominica.
Montserrat.
Virgin Islands.
Grand Duchy of Luxemburg.
New Zealand.
Philippine Islands.
Scotland.
Union of South Africa.
Spain.
Straits Settlements.
Switzerland.
Trinidad.
Wales.
Windward Islands:
Granada.
St. Lucia.
St. Vincent.

Appendix C.

STATE INSPECTION OFFICIALS.

Alabama: State Horticulturist, Alabama State Board of Horticulture, Auburn, Ala.
Alaska: Agronomist in Charge, Alaska Agricultural Experiment Station, Sitka, Alaska.
Arizona: State Entomologist, Phoenix, Ariz.
Arkansas: State Inspector, Fayetteville, Ark.
California: Horticultural Quarantine Officer, room 10, Ferry Building, San Francisco, Calif.
Colorado: State Entomologist, Colorado Agricultural Experiment Station, Fort Collins, Colo.
Connecticut: State Entomologist, New Haven, Conn.
Delaware: Secretary, State Board of Agriculture, Dover, Del.
District of Columbia: United States Department of Agriculture, Federal Horticultural Board.
Florida: State Plant Board of Florida, Gainesville, Fla.
Georgia: State Entomologist, Atlanta, Ga.
Guam: Special Agent in Charge, Guam Agricultural Experiment Station, Island of Guam (via San Francisco).
Hawaii: Board of Commissioners of Agriculture and Forestry, Honolulu, Hawaii.
Idaho: State Horticultural Inspector, Boise, Idaho.
Illinois: Chief Inspector, Office State Entomologist, Urbana, Ill.
Indiana: State Entomologist, Indianapolis, Ind.
Iowa: State Entomologist, Iowa State College, Ames, Iowa.
Kansas, North: State Entomologist, Kansas State Agricultural College, Manhattan, Kans.
Kansas, South: Entomologist, University of Kansas, Lawrence, Kans.
Kentucky: State Entomologist, Kentucky Agricultural Experiment Station, Lexington, Ky.
Louisiana: Entomologist, State Board of Agriculture and Immigration, Baton Rouge, La.
Maine: State Horticulturist, Augusta, Me.
Maryland: State Entomologist, College Park, Md.
Massachusetts: State Nursery Inspector, Statehouse, Boston, Mass.
Michigan: State Inspector of Nurseries, East Lansing, Mich.
Minnesota: State Entomologist, St. Paul, Minn.
Mississippi: Entomologist, Agricultural College, Miss.
Missouri: Entomologist, University of Missouri, Columbia, Mo.
Montana: Montana State Board of Horticulture, Missoula, Mont.
Nebraska: State Entomologist, University of Nebraska, Lincoln, Nebr.
Nevada: Director, Nevada Agricultural Experiment Station, Reno, Nev.
New Hampshire: Deputy Commissioner of Agriculture, Durham, N. H.
New Jersey: State Entomologist, New Brunswick, N. J.
New Mexico: Horticulturist, New Mexico Agricultural Experiment Station, State College, N. Mex.
New York: Commissioner of Agriculture, Albany, N. Y.
North Carolina: State Entomologist, State Department of Agriculture, Raleigh, N. C.
North Dakota: Director, North Dakota Agricultural Experiment Station, Agricultural College, N. Dak.
Ohio: Chief Inspector, Ohio Department of Agriculture, Columbus, Ohio.
Oklahoma: Secretary, State Board of Agriculture, Oklahoma City, Okla.

Oregon: Secretary, State Board of Horticulture, Portland, Oreg.
Pennsylvania: Director, Bureau of Plant Industry, Harrisburg, Pa.
Porto Rico: Entomologist, Board of Commissioners of Agriculture, Rio Piedras, P. R.
Rhode Island: Entomologist, room 129, Statehouse, Providence, R. I.
South Carolina: State Entomologist, Clemson College, S. C.
South Dakota: State Entomologist, South Dakota State College, Brookings, S. Dak.
Tennessee: State Entomologist, Knoxville, Tenn.
Texas: Chief Inspector of Nurseries, Austin, Tex.
Utah: State Crop Pest Inspector, Salt Lake City, Utah.
Vermont: State Nursery Inspector, Burlington, Vt.
Virginia: State Entomologist, Blacksburg, Va.
Washington: Commissioner of Agriculture, Olympia, Wash.
West Virginia: State Entomologist, Morgantown, W. Va.
Wisconsin: State Entomologist, State Capitol, Madison, Wis.
Wyoming: Secretary, State Board of Horticulture, Laramie, Wyo.

PRESS NOTICE.

A revision of quarantine No. 37, with regulations, which restricts the entry from foreign countries of nursery stock, plants, and seeds, has been prepared by the Federal Horticultural Board, United States Department of Agriculture. The revision, which becomes effective August 1, 1921, makes no change in the quarantine, although two regulations, Nos. 2 and 7, have undergone important modifications.

The requirement of freedom from sand, soil, and earth is made to apply to all plants and seeds imported under the terms of regulation 2. Under regulation 7 inspection must hereafter be made at the time of packing of all nursery stock and other plants and seeds, and the certificate of inspection must include certification of packing materials and that the plants have been washed and are free from soil. This modification has been enforced under a special order since March 7, 1921. Under regulation 1 a number of definitions have been added, and a few unimportant verbal changes have been made in other regulations.

Form 207 revised May 16, 1921.

UNITED STATES DEPARTMENT OF AGRICULTURE.

FEDERAL HORTICULTURAL BOARD.

WASHINGTON, D. C.

APPLICATION FOR SPECIAL PERMIT UNDER REGULATION 14, QUARANTINE NO. 37, TO IMPORT NURSERY STOCK AND OTHER PLANTS AND SEEDS.

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SECRETARY OF AGRICULTURE,
Washington, D. C.

SIR: In accordance with Regulation 14 of the rules and regulations supplemental to Notice of Quarantine No. 37, revised, a special permit is requested for the importation of the following new varieties or necessary propagating stock:

Quantity.	Estimated invoice value, each.	Name or exact designation of each species, variety, strain, or type of plant to be imported.	Originator.	Year.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Quantity.	Estimated invoice value, each.	Name or exact designation of each species, variety, strain, or type of plant to be imported.	Originator.	Year.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

Name and address of exporter _____

Name and address of grower _____

Country where grown _____. Locality where grown _____.

Name and address of person (either applicant or authorized agent) to whom plants are to be forwarded after inspection and release by the Department of Agriculture:

_____

Name and address of person (either applicant or authorized agent) to whom permit and shipping instructions should be mailed:

_____

CONDITIONS OF ENTRY.

If this application is approved, it is understood and agreed by the applicant:

(1) That the imported stock will be used solely for propagation by himself or for him under contract as provided below, and that *before* the stock covered by this application is delivered to him he will furnish a bond to continue for a period of from one to five years, depending upon the character and kind of stock, in the amount of $5,000 or in an amount equal to twice the invoice value of the stock if such value be less than $2,500 (but in no case less than $100), the conditions of which shall be as follows:

(*a*) That the imported stock shall be grown and propagated by the importer or for him under contract as provided in 1 (*c*) in such fashion as to maintain its identity, under the number of the permit granting authority for its importation for the period of the bond.

NOTE.—With respect to plants such as spiræas, peonies, etc., which may be multiplied by artificial division, the entire importation, after such division, must be planted and grown for one season regardless of such multiplication by division. The increase over the number imported may, however, be sold after the growing season each year during the period of the bond.

In the case of bulbs such as gladioli, etc., in which the old bulb may be multiplied by natural division, the increase above the number imported may be sold after the growing season each year during the period of the bond.

Imported bulblets must be retained and grown by the importer for the period of the bond.

(*b*) That for the duration of the bond the Board or its representative shall have the privilege of inspecting the stock at any time, and if it is found to be infested or infected with an insect or disease new to or not heretofore widely distributed in the United States the importer shall be required to treat it in accordance with methods to be prescribed by the Board, or if necessary, to destroy it.

(*c*) That if the importer wishes to arrange with some other person to grow and propagate the imported stock, such growth and propagation shall be provided for under a legal contract approved by the Board, which shall require compliance with conditions (*a*) and (*b*) hereof, and that the importer will file with the Federal Horticultural Board either the original or a certified copy of such contract.

(2) That the plants must be certified by the proper inspection official of the country of export at the time of packing as free from pests, that the roots have been washed and are free from earth, and that the packing materials conform to the requirements of Regulation 7.

(3) That, if the plants are found upon inspection by inspectors of the Federal Horticultural Board to be so infested or infected with insects or disease that they can not be adequately safeguarded, they may be destroyed, and such destruction will not be made the basis of a claim against the Department of Agriculture for damages. Cleaning and disinfection will be authorized for any slight infestations which can thus be adequately safeguarded.

(4) That, if any package of stock offered for entry includes any prohibited article or other article not covered by the permit, or if any of the plants have not been washed and freed from earth, the entire package will be refused entry.

(5) That the applicant will arrange with some responsible agency in Washington to clear the plants through the Customhouse, immediately after entry to transfer them to the Inspection Houses of the Department at Twelfth and B Streets, NW., and if the quantity of material is larger than can be easily housed in the Inspection Houses of the Department, to provide, under the supervision of the Department, local storage in Washington for the material during the period of its examination and, if necessary, disinfection, to supply labor for repacking and additional containers and labor and chemicals for disinfection if such are necessary. Small shipments will be repacked by the Department and forwarded by express, charges collect, to the importer.

(6) That the duty, brokerage, and other charges connected with the entry of the plants are to be paid by the importer or by his agent or broker.

(7) That the applicant will arrange with the foreign shippers to furnish the Federal Horticultural Board with a true copy of the invoice giving an itemized statement of the contents of the shipment.

(8) That the plants imported will be restricted to the smallest plants as to size and age, or to portions of plants, that can accomplish the purpose.

IMPORTATION AND PROPAGATION.

1. Give approximate date of importation _____

2. Give location of the premises where the material is to be propagated and the name of the actual grower.

_____

_____

3. State the proposed method of propagation _____

_____

I hereby certify the truth and accuracy of the informational data supplied herein and agree to the conditions of entry given above.

(Signed) _____
(Name of applicant.)

_____
(Address.)

(APPLICANT WILL NOT WRITE BELOW THIS LINE.)

RECOMMENDATION OF BUREAU OF PLANT INDUSTRY COMMITTEE.

Are these plants "new varieties" or "necessary propagating stock" as claimed? _____

Are the quantities reasonable and necessary? _____

Remarks:

_____

_____

_____

We recommend that the permit be _____ granted.

Approved:

_____ _____

Chief, Bureau Plant Industry. *Chairman, Bureau Plant Industry Committee.*

Applic. No. Sent B. P. I. Ret. B. P. I. Information lacking.. Letter needed. Approved.

IMPORTATION OF RHODODENDRON AND AZALEA SEEDLINGS AUTHORIZED. (PRESS NOTICE.)

After a hearing held February 1 at the Department of Agriculture on the importation of *Rhododendron ponticum* and *Azalea pontica* seedlings to be used as stocks for grafting, the Federal Horticultural Board of the United States Department of Agriculture indicated that it will issue special permits for the importation of seedlings of three years' growth or under of these two plants for the period terminating June 1, 1922. It was represented that such seedlings were not available in the United States and could not be grown from seed to a grafting size in this country within a period of two or probably three years, and that unless such seedlings could be imported these plants would be absolutely unavailable to the American market for this period. It is expected that after June 1, 1922, it will be possible to supply further needs from home-grown stock. This action was taken as a result of this conference and is supported by the unanimous request of the Ornamental Growers' Association, representing the principal growers of hardy ornamentals in the United States, and with the distinct understanding, which was agreed to by this society, that this action would not be taken as a precedent for demands for similar entry of seedlings or lining out stocks of other ornamentals. *The entry of these plants under special permit will be surrounded with the same safeguards which apply to other special permits issued under the quarantine.*

LIBERAL PROVISION MADE FOR PLANT INTRODUCTIONS UNDER QUARANTINE NO. 37.—PRESS NOTICE.

In addition to the unlimited commercial entry which is permitted under Quarantine 37 of certain classes of plants, it is perhaps now generally understood that provision is made under Regulation 14 of this quarantine for the importation of all other plants whatsoever in quantities to meet any legitimate introduction needs.

In order to give a fair opportunity to secure necessary stocks for such purposes, the board will issue to all applicants during the first two-year period of the quarantine special permits for any particular plant variety, new or old, unavailable commercially in the United States. In other words, such permits will not be refused to late comers because permits for perhaps adequate quantities of the plant concerned have already been issued to others. A two-year period, however, would seem to be sufficient to allow practically all plant propagators opportunity to stock up with unavailable plants. Thereafter the issuance of permits for such plants will be made absolutely dependent on a showing of need and of commercial unavailability in the United States. It should go without saying that this provision will not restrict the issuance of special permits for the importation of new horticultural creations or discoveries.

This decision of the board is to correct a situation which had arisen in the administration of the quarantine where permits were being refused with respect to plants for which entry had previously been authorized, and it was felt that it was better to give all an opportunity for a definite period to secure any of the plants which had once been authorized rather than to arbitrarily stop the issuance of permits perhaps after only a few individuals had secured the plants in question, under the belief that sufficient stocks of these plants had already been imported.

Importers and the public probably now fully understand that importations under special permits are only for reproduction purposes, and the plants so imported must be kept for a period of one to five years, designated in the permit, and employed for such reproduction purpose under the control of the

board and subject to such inspection from time to time as the board may require.

In this connection it may be a matter of interest to state that special permits under Regulation 14 have been issued authorizing importation of approximately 5,000 different varieties of plants. Many of these varieties have been included in many different permits, and the importation of some of them, notably in the case of bulbs and bulblets, has been authorized in very large quantities. Since the quarantine was promulgated some 650 permits have been issued for the entry for this purpose of the so-called "prohibited plants." These permits authorize the importation, if they can be found for purchase abroad, of upwards of 16,000,000 plants, including bulbs and bulblets, and also several hundred thousand ornamentals and other plants. Importations made under these permits are now being successfully propagated and reproduced in hundreds of establishments in some twenty-five different States.

The policy of the board and department has been liberal as to the amount of plants which may be imported under these permits, with the intention of giving ample opportunity to establish reproduction enterprises on as large a commercial scale as the market demands of this country warrant, and with the object of eliminating as rapidly as possible the dependency on foreign supplies and thus attaining the main purpose of the quarantine in greatly lessening the risk of entry of new plant pests.

NESTS OF BROWN-TAIL MOTH AND WHITE TREE PIERID ARRIVING ON FRENCH FRUIT SEEDLINGS—CAREFUL INSPECTION OF ALL FRENCH STOCK NECESSARY.

HB–128. FEB. 8, 1921.

The following telegram was forwarded to various State officials to-day:

> "French fruit seedlings arriving heavily infested brown-tail moth nests. Urge thorough inspection all shipments your State."

This office has just been advised that since January 1, 1921, twelve shipments of French fruit seedlings have been found to contain nests of the brown-tail moth. These interceptions were made, with the exception of two by Federal inspectors in New York City, by officials of the following States: New York, Indiana, and North Carolina. In all probability other interceptions have been made by State officials but not reported to this office.

The finding of so many shipments in such a brief period harboring nests of the brown-tail moth would indicate a decided laxity on the part of the French inspectors, and should *emphasize the urgent need of careful and consistent examination of all shipments from France coming under your jurisdiction.*

The inspectors of the board at the port of first arrival make a cursory inspection of all foreign shipments of nursery stock for the purpose of determining their agreement with the permit, invoice, and original certificate of inspection, as to quantity and kind of nursery stock offered for entry, and also as to compliance of the shipment with the other requirements of the regulations. Owing to lack of facilities and inspectors at the port of first arrival, it is possible to make only a superficial examination of a limited number of cases in each shipment. State officials should therefore make careful inspection of all foreign nursery stock, especially of French origin. Moreover, as indicated in HB–123, dated April 19, 1920, the Federal Horticultural Board heartily recommends the burning of all packing material.

Experiments are under way in Boston to determine the possibility of killing hibernating brown-tail larvæ by vacuum fumigation. In the meantime, steps have been taken to have all French shipments given such fumigation as is now

required for cotton. If vacuum fumigation will not kill all larvæ contained in nests, it may be necessary to cancel all existing permits for French stock.

Your attention is also called to the repeated finding of nests of the white tree pierid (*Aporia crataegi* L.) on French fruit seedlings. The larva of this insect is a general feeder and is recorded as injuring the foliage of fruit and wild rosaceous plants and oak trees in Europe and is certainly not wanted in this country. Nests of the white tree pierid are usually smaller than those of the brown-tail moth and sometimes do not contain living larvæ. Inasmuch as there is a possibility of confusing the nests of the brown-tail moth and the white tree pierid, it is suggested that if there is any doubt in your mind as to the insect collected it should be forwarded to this office for determination by specialists, after steps have been taken to kill any larvæ which may be contained in the nests.

The French inspection service has been advised by cable of the condition of stock under their certificate arriving in this country, and a warning has been issued to the French exporters and the American importers.

Yours very truly,

E. R. Sasscer,
Entomologist in Charge, Port Inspection.

Approved:
C. L. Marlatt,
Chairman of Board.

RESTRICTIONS ON ENTRY OF FOREIGN PLANTS WIDELY MISUNDERSTOOD.

HB–130. Feb. 25, 1921.

Any law or regulation which restricts freedom of action on the part of the individual necessarily has enemies. Federal and State plant quarantine legislation aiming to protect this countrty from new important plant pests is not an exception to this rule. Just now Federal Quarantine No. 37, which restricts the entry of foreign plants to prevent such entry of pests, is being unjustly criticized by a few persons who would like to see this quarantine abolished or amended so that in large measure the old-time free importation of foreign nursery stock and other plants could be resumed with all its attendant dangers. It would hardly be worth while to pay attention to these criticisms except that they absolutely misrepresent the quarantine and have been widely circularized through a fairly active propaganda and unfortunately have been accepted at face value by many plant amateurs and societies of such amateurs. Such persons and societies, from lack of acquaintance with the quarantine and its workings, have thus obtained a very erroneous idea of the actual restrictions now being enforced on the entry of foreign plants. The agricultural and horticultural and nursery interests of this country appreciate the need for this quarantine and understand the provisions limiting plant importations. But for the information of plant amateurs throughout the country and of amateur horticultural and garden societies, etc., it seems desirable to issue a statement of facts in relation to Quarantine No. 37, indicating the provisions which are made under it for the importation either free or under restriction of any plant whatsoever for which a necessity can be shown and to correct the more important of the misrepresentations which have gained acceptance in some quarters through lack of accurate information about the quarantine.

AMPLE PROVISION MADE FOR THE ENTRY OF ANY AND ALL PLANTS.

With respect to possibilities of plant importations under Quarantine No. 37, amateur societies and plant lovers have a right to be concerned by such statements as the following, taken from this propaganda:

The Department of Agriculture has inaugurated "a policy that would gradually result in the exclusion of all foreign nursery stock and florists' stock"; "a Chinese wall policy for America" which will exclude "other plants which may be discovered anywhere as valuable to us as have been the apple, the lilac, the peach, and countless other familiar but exotic plants in use to-day"; and "the extension of the present system of exclusion by regulation under a blanket law will undoubtedly result in a total embargo against further horticultural progress in the United States."

What are the facts as to restrictions on plant importations? No plants are absolutely prohibited entry into the United States under Quarantine No. 37 or under any other Federal plant quarantine. Ample provision has been made for the importation into the United States of any plant whatsoever, whether for introduction, experimental, scientific, or other purpose. The department has no wish or intention now or at any time to make it impossible to provide for the entry under proper safeguard of any plant for which a reasonable need can be indicated.

HOW PLANTS MAY COME INTO THE UNITED STATES.

1. Unlimited entry is possible without permit or other restriction of field, vegetable, and flower seeds, and of fruits, vegetables, cereals, and other plant products imported for medicinal, food, or manufacturing purposes.

2. Unlimited entry is possible under permit of from 80 to 90 per cent of the bulbs hitherto imported; of all stocks, cuttings, scions, and buds of fruits; the important rose stocks, and all seeds of fruit and forest trees and of ornamental plants and shrubs, including hardy perennial plants.

3. Entry, limited only by legitimate needs, of all other plants is provided for under special permit for the purpose of keeping the country supplied with any new variety or any necessary propagating stock.

4. The exceptions to these paragraphs (1 to 3) are those involved under specific quarantines, as, for example, the quarantines relative to citrus plants, bamboo, banana, etc., but any plants prohibited entry under such quarantines may be imported by or through the United States Department of Agriculture for any necessary experimental, scientific, or introduction purposes.

The classification of plants above given includes all plants and seeds whatsoever for propagation or other uses, and indicates clearly the purpose of the department and the provisions of the quarantine to provide for the entry now and hereafter of any necessary or useful plant and in quantities sufficient to meet any reasonable need.

HOW PLANTS MAY BE IMPORTED.

It is not necessary to consider the importation which is unlimited as to quantity and practically unrestricted of the plants and seeds in the first two groups of plants as classified above. The third group of plants in this classification includes all ornamentals and other plants not included in groups 1 and 2 and it is the restrictions on importations of this group that are objected to in this propaganda. As already indicated, provision is made under the quarantine for the importation of any of these plants under special permits, the only limitation being the showing of the necessity for their importation to supply stocks of any new plants or of any old plants not now commercially available in the United States, for the purpose of establishing reproduction plantings which may ultimately make this country independent of further foreign supplies. With respect to such importations, the department has adopted a policy of great liberality under the point of view that it wishes to afford every reason-

able means for the introduction for the purpose indicated of any plants not now available in this country. The immediate sale of plants thus imported is necessarily not permitted, and the plants imported are required to be kept and utilized for the purpose of reproducing additional stocks for the period (1 to 5 years) designated in the permit—this period being based upon the time needed for such multiplication or reproduction. No restrictions are placed on the sale of any plants produced from such imported stock except that the importer will be expected to maintain a sufficient supply to meet his continuing needs. Special permits for such importations are issued to any and all applicants who agree to the conditions of the permits and will be continued to be issued with respect to any plant until the Department of Agriculture is convinced that adequate stocks are commercially available in the United States.

PLANT EXPERTS PASS ON ALL SPECIAL PERMITS.

With respect to any request for a special permit, the determination whether the plants requested are either new or are commercially unavailable in the United States is made by a committee of experts appointed by the Chief of the Bureau of Plant Industry of the department—men therefore who are thoroughly acquainted with the subject. In addition, the recommendation of this committee before being returned to the board receives the approval of the chief of that bureau. With respect to such permits, furthermore, the department recognizes that plants may be common throughout the country and yet not available commercially and for such plants also special permits will be issued. Undoubtedly some errors have been made in refusing permits, but on proper presentation of evidence the permits in question have been issued. There may also have been some lack of uniformity at the outset before an adequate system of records and control was worked out but under the existing system action should be uniform. The board, however, will give careful consideration to evidence with respect to any permit which would warrant its issuance even over the recommendation of the experts of the Bureau of Plant Industry. The board's own function with respect to such permits is to insure uniformity and to enforce the conditions embodied in the permits.

The requirement of a bond in connection with such special permits has been objected to in a few instances. It developed that such bonding of permittees was a necessary requirement. The mere promise of a few importers at least was apparently not sufficient and at the outset plants imported under special permits for the purpose of propagation were in some instances promptly sold in violation of the permit. The bond seems to be the only means of insuring full compliance with the permit and unfortunately it is a burden which must fall on all alike. The bond employed, however, is the one which has been long used in the customs service for similar purposes and has not proved any serious bar to plant importations, as evidenced by the special permits already issued and the importations made thereunder, discussed below.

RECORD OF IMPORTATIONS OF "PROHIBITED PLANTS."

The records of actual importations of this class of so-called "prohibited plants" makes a very informing statement with respect to the charges of "total plant exclusion," "Chinese wall," etc. The records of the department indicate that since the promulgation of this quarantine some 650 permits have been issued for the entry of these so-called "prohibited plants." The plants authorized entry in these permits include bulbs, ornamentals, roses, orchids, herbaceous plants, etc., to a total of upwards of sixteen million plants. The

bulk of these is naturally represented by bulbs and bulblets which must be secured in large quantities for adequate reproduction purposes, but the permits also include several hundred thousand ornamentals. Altogether these permits include authority for the entry of 5,000 different varieties of plants out of some 5,500 covered in the requests received; in other words, 10 out of 11 of the plant varieties requested have been authorized entry. These special permits are valid or may be extended until the plants authorized have been secured and entered and many of them are still in force. The "prohibited plants" thus imported are now being grown in hundreds of establishments in some 25 different States and also in the District of Columbia. This new plant production development should within a few years make us independent of much of the stock which was formerly secured abroad and will build up horticulture and floriculture in this country in the most constructive and permanent way, and, at the same time, accomplish the object of the quarantine, namely, to very materially lessen the danger which has hitherto been a continuing and heavy one, of entry of new destructive plant pests. This does not look like an "embargo" or a "Chinese wall plant policy for America!"

FUNCTIONS OF THE FEDERAL HORTICULTURAL BOARD MISUNDERSTOOD.

There seems to be a general misapprehension with respect to the functions of the Federal Horticultural Board in relation to this and other quarantines promulgated by the Department of Agriculture. This point of view is voiced in the propaganda referred to in such expressions as "The Horticultural Board is the controller of the horticultural research and commerce"; "Permits issued or denied arbitrarly"; "The official acting for the Federal Horticultural Board determines the quantity of any plants which in his wishes it is proper to admit"; "The present Federal Horticultural Board is composed of plant pathologists and entomologists and has neither knowledge of nor interest in the development of the garden art and all that it means to America!" "There is no reason why five men, none of whom is a horticulturist, should have power of life and death over the florists and nurserymen of this country, a power prohibiting millions of amateur gardeners from growing the plants which they desire," etc.

WHAT IS THE BOARD AND WHAT ARE ITS POWERS?

The Plant Quarantine act of August 20, 1912, provides: "That for the purpose of carrying out the provisions of this act there shall be appointed by the Secretary of Agriculture from existing bureaus and offices in the Department of Agriculture, including the Bureau of Entomology, the Bureau of Plant Industry, and the Forest Service, a Federal Horticultural Board, consisting of five members, of whom not more than two shall be appointed from any one bureau or office, and who shall serve without additional compensation." As now constituted, this board includes two persons from the Bureau of Entomology, two from the Bureau of Plant Industry, and one from the Forest Service.

The misconception in relation to this board is chiefly that it has full powers and is a law unto itself and acts arbitrarily on its own information and on its own whim. In point of fact, the Secretary of Agriculture is designated as the responsible administrator of the act and the board is appointed to assist the Secretary in such administration, and all quarantines or other regulatory orders under the act are issued by the Secretary of Agriculture. Furthermore, the board is not the sole or even necessarily the important advisor of the Secretary with respect to such quarantine and regulatory actions. Every sub-

ject of quarantine or regulation is referred to and discussed by the great body of plant experts of the department. As is well known, there are in the Department of Agriculture hundreds of plant experts covering every phase of plant production and plant improvement—men who are recognized throughout the country as leaders in their plant specialties in horticulture, floriculture, and forestry, and it is from this body of both technical and practical men that the Secretary and the board get advice and information with respect to all proposed quarantine or other restrictions on plant movements.

In addition to this expert advice within the department, the act provides that, prior to quarantine action, and after due notice, public hearings shall be held, at which any person in interest may have opportunity to present any phase of the matter or any argument for or against the proposed action. The final decision of the department on quarantine and related matters is based on the information and judgment, therefore, of its own plant experts as well as on the facts presented at these public hearings, and on all other available information. The provision for the consideration by a committee of plant experts of all requests for special permits for entry of plants otherwise excluded has already been described.

PLANT INSPECTION IN WASHINGTON OBJECTED TO.

Strong objection has been made to what is described as the requirement for sending all plants to Washington for inspection and certification. In point of fact, this requirement applies only to the importation of so-called "prohibited plants" for reproduction purposes and not at all to the classes of plants which are permitted unlimited commercial importation. The objection to inspection in Washington of plants imported under special permit has a sound basis, viz., delay, expense, and rarely some risk to the health of the plants. This requirement, however, is based merely on the lack of funds to establish adequate inspection offices and forces at numerous ports of entry. In making provision for the entry of the so-called "prohibited plants" for introduction and reproduction purposes it was necessary, in order to guard against risk of entry of new pests, to provide for a very adequate and thoroughgoing inspection, and, if necessary, disinfection of such plants. The available funds have permitted the establishment of but one such equipment and this only by taking advantage of the existing trained corps of inspectors under the board at Washington. The department has been perfectly willing, and has endeavored to secure appropriations which would enable it, to establish properly equipped inspection points at the two or three main ports of entry. This difficulty, which is the one principally complained of, is therefore not one of intention and is one which it is hoped will soon be remedied. Such enlargement of inspection facilities was, in fact, begun some time since by provision for inspection at San Francisco of imports under special permits from trans-Pacific countries.

An investigation of the delays complained of indicates that for the most part they are the result of neglect of the brokers or others at the port of entry to make provision for the prompt forwarding of the shipments, or are due to transportation difficulties over which the board has no control. In point of fact, 99 per cent of the importations coming to Washington for inspection get to ultimate destination with a minimum delay and without any material increase of injury to the plants. The considerable injury in the case of a few importations was due to faulty packing or delays in transit and not to the fact of their detention for inspection purposes in Washington. In other words, these plants were dead or in a dying condition when they reached the inspection offices of the department. Better packing and better service at the ports of

entry have largely eliminated this source of complaint. The successful establishment of hundreds of new reproduction enterprises in half of the States of the Union indicates lack of foundation for the criticism of injury or loss on account of the existing inspection requirements.

WILL ALL PLANTS ULTIMATELY BE BARRED OUT?

By the use of a portion of a sentence which has a perfectly plain meaning in connection with the report in which it occurs it is represented in this propaganda that the Department of Agriculture intends ultimately to bar out altogether all plants from abroad. The sentence in question occurs in a report prepared by the Bureau of Plant Industry, long antedating the quarantine (Feb. 25, 1918), and made in response to a request from the board for advice as to the advisability of excluding in the near future or after a suitable period for adjustment all ornamentals or other plants with balls of earth about their roots, and also information on the exclusion of nursery stock of all kinds from Asia and Africa and other little-known and little-explored parts of the world. This request was based upon the known risk of entry of pests in such soil and the impossibility of disinfecting such soil, and the known exceptional risk which comes from plants from Asia and Africa and other little-explored regions, as illustrated by the many new plant enemies already established in the United States from such sources. In connection with this request the following significant statement occurs: "It is understood that provision should be made for importations by this department for experimental or introduction purposes." Furthermore, this report of the Bureau of Plant Industry contains also in its conclusions the following statements:

> That provision be made for the admission of limited numbers of new varieties or novelties.
>
> That the Bureau of Plant Industry take steps for the inauguration of a specific project designed to aid the nursery and florist industries in matters of *introducing*, propagating, and growing stocks which, under regulations of the board, may be excluded.
>
> That a public hearing be called for the purpose of discussing the action here proposed.

The lack of any basis for this misrepresentation is perfectly apparent and the ridiculousness of the argument based upon it hardly needs rebuttal. There certainly is no agency in the United States that is better acquainted than the Department of Agriculture with the need for securing any useful and valuable plant which may be had in foreign countries and which is capable of introduction and establishment in the United States. This need has found expression in this department in a host of useful plant introductions and in the establishment now for many years in the Bureau of Plant Industry of the office of Foreign Seed and Plant Introduction. Through this office and other department agencies some 10,000 different kinds of foreign plants have been imported during the last 25 years, many of which have proven to be highly useful plants and have already taken their place permanently in the agriculture and horticulture of this country. Furthermore, as already noted, the quarantine regulations are specifically drawn to make such introductions possible, and clearly indicate the continuing necessity for such introductions. All the pronouncements of the Federal Horticultural Board and of the department with respect to this quarantine are specific and clear, and indicate no purpose whatsoever now or at any other time of an intention to bar any foreign plant necessary for the establishment of any new or desirable fruit or ornamental.

BOTANIC GARDENS NOT MATERIALLY RESTRICTED BY THE QUARANTINE.

It is asserted in this propaganda that "The beneficial research work of the great institutions of America, such as the Missouri Botanical Garden in St. Louis and the Arnold Arboretum of Harvard University, have been either stopped or disastrously checked so far as such operations are dependent upon plants obtained from beyond the borders of the United States." The possibilities for the entry of any new or desirable plant whatsoever, already discussed, indicate the absolute lack of basis of this charge. The Department of Agriculture recognizes that institutions of a public or semipublic nature such as the leading botanic gardens of the country are on a different basis from the ordinary plant importer, and are deserving therefore of special consideration. For example, the bond which is required of the ordinary importer is not required of such gardens or in connection with any importations made by other recognized public institutions, such as agricultural colleges and experiment stations.

In view of the six hundred and fifty-odd permits which have been issued to private importers and the establishment of hundreds of successful plant propagation enterprises throughout the United States by importations made under these permits, the ridiculousness of the charge that botanic gardens are necessarily materially affected in their development by this quarantine is apparent. Certainly botanic gardens with their superior facilities can make importations under the quarantine just as successfully and readily as they have been made by hundreds of private importers.

The chief objection to the quarantine on the part of botanic gardens has been to the requirement of sending their importations to Washington for inspection and treatment. If, as indicated elsewhere, the department secures funds to provide for inspection at the principal ports of entry, this objection will necessarily largely disappear.

Importations by botanic gardens and similar institutions do not differ in point of risk from those made by other agencies. On the other hand, the effort of such institutions to get new and strange plants from the little-explored regions of the earth vastly increases this risk. The plant explorers of the United States Department of Agriculture have gone over much of the ground covered by the plant explorers of these gardens, notably in China, Manchuria, and elsewhere in the Orient, and have collected similar material. All of this material is given very careful scrutiny by the department's inspectors with the result that a considerable percentage of it has been found to carry new insect pests and plant diseases. This has necessitated the destruction by burning of many shipments secured at great cost by this department, and in holding much of the rest in quarantine or limiting the introduction to buds taken from scions after very careful microscopic examination to determine freedom from infestation. It is perhaps worth noting that this department during the last quarter of a century has made upwards of 50,000 separate plant introductions involving as elsewhere indicated upwards of 10,000 species and varieties of plants.

No examination or control similar to that given to the importations made by the United States Department of Agriculture has hitherto been possible with respect to the material imported by public gardens, but there is no question but that such examination would have disclosed a similar average percentage of infestation. It must be remembered also that practically all of the important pests that have been introduced from abroad had been in this country from

10 to 20 years before their presence was detected. This applies to the gipsy moth, the citrus canker, the corn borer, the chestnut blight, the European satin moth, recently discovered about Boston, and many others. Furthermore, such new insects and diseases may remain inconspicuous and fairly harmless as long as they are associated only with the imported plants, but they may assume a vastly different relation when they reach native related plants. The chestnut blight, for example, is practically harmless to the oriental chestnut which brought it into this country, but that has been no bar to the destruction by this disease now rapidly progressing, of the chestnut forests of America. This probability of vastly greater danger in this country over the country of origin applies to every new plant disease and every new insect pest, and has been repeatedly illustrated.

LITTLE DANGER FROM SHIPS' BALLAST.

The subject of soil and other ships' ballast is again brought up in this propaganda with the argument that if such ballast is permitted entry the prohibition of the entry of plants with soil is illogical. In response to this objection, which is an old one, the Federal Horticultural Board had a very careful investigation of such ships' ballast conducted (1918–19) at the principal ports of entry of the United States. This investigation indicated that the war conditions had greatly increased the number of ships entering Atlantic ports in ballast, due to the necessity of return in ballast of transports engaged in carrying troops to France. This investigation indicated further that the bulk of the material employed as ballast consisted of sand, gravel, broken rock, and even ashes. The soil occasionally employed proved to be excavation soil (cellar and ditch soil) or soil from river banks. In other words, there was no indication that garden or field soil was ever used for such purposes. Later on the question of immunity of subsoil came up to determine its availability as packing material for bulbs, and the department's investigation indicated that such soil could be safely so used and the quarantine was modified, permitting such use. Under the present normal conditions the amount of ballast coming to American ports is comparatively small, and the risk therefrom is trivial as compared with cultivated soil long associated with plants in greenhouse or outdoor cultures and more or less abundantly stocked with insect, nematode, and disease enemies of plants.

CONCLUSION.

It would certainly seem to be good business and practical common sense to restrict so far as possible importations of plants which in the past have proved so disastrous to the agriculture and horticulture of this country. It is certainly unthinkable that the farm, garden, orchard, and forestry interests of the United States, or that any plant lover should want to return to the old system.

With the support of quarantine 37 a distinctively American horticulture and floriculture is now being created and the dependence on foreign-grown plants is rapidly disappearing, and with it much of the risk of entry of new plant pests.

Quarantine 37 has been amended several times and may be amended in the future upon presentation of adequate reasons therefor, but no amendments will be seriously considered which will open up again the dangers which this quarantine is designed to guard against.

C. L. Marlatt,
Chairman, Federal Horticultural Board.

MISINTERPRETATION POSSIBLE OF INSPECTION AT PORT OF ENTRY.

HB–131. FEB. 28, 1921.

The following paragraph is taken from a communication signed by a New York broker and addressed to the State Entomologist of New Jersey:

> "We herewith inclose you notice of shipment of two cases nursery stock which we are shipping to _____ which has passed the Federal inspection in this city."

It would appear from this statement that some brokers are advising State officials that plant material *has been passed by Federal inspectors* with the possible intention of leading State inspectors to accept the examination made in New York City as final.

You are urgently requested to disregard any statement which you may receive from a broker indicating that a given shipment has been passed by Federal inspectors at the port of entry, and to give thoroughgoing inspection to all foreign shipments of fruit and rose stock.

As indicated in the fourth paragraph of HB–128, issued February 8, 1921, a copy of which was forwarded to you, the examination of plants included under Regulation 3 of Quarantine 37 by inspectors of the Federal Horticultural Board in New York City, is made for the purpose of determining the agreement of the shipment with the permit, invoice and original certificate of inspection as to quantity and kind of nursery stock offered for entry, and also as to compliance of the shipment with the other requirements of the regulations. This involves the opening and superficial examination of a representative case or two in each shipment, and is in no sense an inspection to determine the presence or absence of insects and plant diseases except such as may be found in the cases actually opened. The examination in New York City should not be accepted, therefore, in lieu of a thoroughgoing inspection by State officials.

Yours very truly,

E. R. SASSCER,
Entomologist in Charge, Port Inspection.

Approved:
C. L. MARLATT,
Chairman of Board.

PACKING MATERIAL FOR NURSERY STOCK, PLANTS, AND SEEDS.

HB–132.

Revised June 8, 1921.

All packing materials employed in connection with importations of nursery stock and other plants and seeds under quarantine No. 37 are subject to approval as to such use by the Federal Horticultural Board.

PACKING MATERIAL FOR BULBS AND CORMS.

Regulation 3, Quarantine No. 37, provides that the requirement as to freedom from sand, soil, or earth shall not apply to sand, soil, or earth used for packing the articles enumerated in item No. 1 of Regulation 3 when such sand, soil, or earth has been previously sterilized in accordance with methods prescribed by the Federal Horticultural Board under the supervision of an authorized inspector of the country of origin, such sterilization to be certified to by the duly authorized inspector of such country of origin. This provision is extended also to bulbs and corms imported under special permits under Regulation 14. The prescribed method of sterilization is as follows:

> All sand, soil, or earth used for packing any of the bulbs referred to above must be brought to a temperature of 100° C. and held there for a period

of one hour. Such sterilization is accomplished at one of the department's field stations by the use of a large iron receptacle holding about a cubic yard of soil. The soil should be kept stirred during the heating process. Any method which will maintain the heat throughout the mass at the required temperature for this length of time will be satisfactory to the Federal Horticultural Board. The sterilization must be performed under the supervision of a duly authorized inspector of the country of origin and must be certified to by such inspector.

The board has also authorized the use for packing of bulbs and corms of certain soil materials which are believed to be sufficiently sterile to meet this requirement. Such materials must, however, be certified as complying with the required conditions by the duly authorized inspector of the country of origin. It should be definitely noted that the use of sterilized soil and of the naturally sterile soil materials described below is not authorized for plants or roots other than bulbs and corms.

(1) *Subsoil from Japan.*—The conditions of the use of such subsoil are indicated in the paragraphs quoted below, which were submitted for approval by Dr. S. I. Kuwana, director of the Imperial Plant Quarantine Station, Yokohama, Japan:

> All soil used in packing bulbs to be shipped to the United States to be collected and handled under the supervision of the director of the Imperial Plant Quarantine Station at Yokohama, Japan.
>
> The Director of the Imperial Plant Quarantine Station will certify that the soil used in packing is subsoil taken from 2 to 3 feet below the surface; that it has been sieved, sifted, dried, and stored so as to prevent contamination by insects and diseases, and that no dangerous insects or diseases are known to occur in the locality where the soil is secured.

(2) *Dune sand from Holland.*—On representations made by Mr. N. Van Poeteren, chief of the phytopathological service of Holland, the board has authorized the use, when properly certified, of dune sand taken from a depth of 5 feet or more from the surface.

(3) *Coral sand from Bermuda.*—Similar arrangements have been made for the use of unsterilized coral sand, uncontaminated with surface soil, for use in packing bulbs shipped from the Bermuda Islands when properly certified by the director of agriculture of those islands.

GENERAL PACKING MATERIAL FOR NURSERY STOCK, PLANTS, AND SEEDS.

Where any packing material is needed for the safety of nursery stock, plants, and seeds, other than as provided for above, for bulbs and corms, such materials as sphagnum, coconut fiber, straw, chaff, excelsior, shavings, sawdust, charcoal, and ground peat may be used. Such packing material must not have been previously used as packing or otherwise in connection with living plants and must be free from sand, soil, or earth and must be so certified by the duly authorized inspector of the country of origin.

Authority for the use of any other packing materials will be granted on the determination of the board that such materials do not involve a risk of introducing insect pests or plant diseases.

C. L. Marlatt,
Chairman, Federal Horticultural Board.

IMPORTED PLANTS MUST BE INSPECTED AT TIME OF PACKING AND WASHED FREE FORM EARTH.

HB-133. March 11, 1921.

The board has found it necessary to cable the following instructions to foreign inspection officers:

> Hereafter inspection must be made at time of packing and must certify freedom from pests and that roots are washed free from earth.

The requirement of inspection at the time of packing has been necessitated by the abundant infestation with brown-tail moth and other insect pests found notably in shipments of rose and fruit stocks from France, indicating perhaps that the inspection had been of a field nature earlier in the season and did not necessarily apply to the material at the time of packing. News statements have already been issued relative to this situation. The actual findings of brown-tail moth nests for example up to this time have amounted to 86 nests, substantially double the infestations found in the previous eight-year period under the quarantine. A radical improvement in the French inspection service and in the condition of imported stocks must be made or the department will be compelled to place an embargo on French importations.

The requirement that roots of ornamentals and other plants shall be washed free from earth has been necessitated by the various degrees of compliance by foreign exporters with this provision of the regulations. Many importations have come in with practically no effort at freeing the plants from earth. In aggravated cases the earth came in cubes as lifted with the spade. All shipments which have shown radical failure of observance of this requirement of the regulations have been and will be refused entry. To properly enforce this requirement of the regulations and to leave no chance for question, hereafter all rooted plants and plant roots other than clean bulbs will be required to be washed free from earth before shipment from the country of export and to be so certified by the foreign inspector along with the certification of freedom from insect pests and plant diseases.

That such washing of plants is a perfectly possible proceeding has been frequently demonstrated on the part of shipments notably from Japan. These shipments have included such plants as azaleas, for example, which have a very dense, fibrous root system. Large shipments of such plants have been received with the roots thoroughly washed and rebound in bunches of moist sphagnum, and thus prepared these plants have come through in perfect condition; in much better condition, in other words, than where an effort has been made to free the earth from the roots merely by shaking and then protecting them with a scanty and often indifferent packing of sphagnum or other material.

These requirements as to inspection and certification apply to *all* shipments from countries which have provided for inspection and certification in conformity with the requirements of the plant quarantine act; in other words, both to general and special permit material. The requirement as to freeing the roots of plants from soil by washing applies to *all* countries.

The authorizations which have been issued from time to time for the use of subsoil, dune sand, coral sand (Bermuda), and ground peat for the packing of bulbs is not affected by this action (See HB–132). Such packing is, however, not authorized for plants other than bulbs.

C. L. Marlatt,
Chairman, Federal Horticultural Board.

NOTICES OF SHIPMENT OF NURSERY STOCK MADE A CONDITION OF ENTRY.

HB–134. March 23, 1921.

Hereafter all nursery stock, plants, and seeds entered under Regulation 3, Quarantine 37, will be refused entry unless and until the notices required in Regulations 10 and 11 are fully made out and lodged with other entry papers with the Collector of Customs. Hitherto this requirement has applied only to the *notice of arrival*, but hereafter it will apply, as indicated, both to *notice of arrival* at the port of entry and to *notice of shipment* to the ultimate consignee.

This action has been necessitated by the growing laxity on the part of importers and brokers in submitting the notice of shipment required under Regulation 11. Numerous complaints have been received from State nursery inspectors that they frequently receive the notice provided for in this regulation long after the stock has reached destination or even after it has actually been planted. Moreover, in some instances no reports are received at all. The board has a drastic remedy which it is loath to apply under Regulation 13, viz, failure of the permittee to give any notice required by the rules and regulations under the quarantine may be made the basis of canceling existing permits and refusal of further permits to the importer at fault. The action now taken will make the submittal of these notices, in the manner indicated, a necessary condition of entry, and customs officials will be so advised. The distribution of these notices to the Secretary of Agriculture and to the duly authorized inspection officer of the State, Territory, or District to which the nursery stock and other plants and seeds are to be shipped will be completed by the inspector in charge of the work of the Federal Horticultural Board at the port of entry.

This order will apply merely to ports where the Federal Horticultural Board maintains such inspection service.[1] At other ports the importer will be required to make out and submit these notices as formerly, and at such other ports he is cautioned to mail these reports both to the Secretary of Agriculture and to the proper State official *before or at the time of shipment and distribution* of the imported stock. Failure to do so may lead to the enforcement of the penalties provided for under Regulation 13.

C. L. Marlatt,
Chairman, Federal Horticultural Board.

QUARANTINE 37 TO BE STRICTLY ENFORCED AS TO PLANTS BROUGHT BY TRAVELERS OR OTHERS.

HB–136. May 4, 1921.

The inspectors and collaborators of the Federal Horticultural Board, charged with the enforcement at ports of entry of Plant Quarantine No. 37, are instructed to strictly enforce this quarantine with respect to any of the minor or casual introductions of flowering or other plants and plant products brought personally by travelers or others. This means the prohibition of entry of such shipments except as they come properly and distinctly under the provisions of Regulations 2, 3, 14, and 15 of the quarantine.

With respect to any such plants or plant products which are *properly enterable under Regulation 3*, inspectors of the board are authorized to issue emergency permits to such returned travelers or others in lieu of specific authorizations from Washington.

All such importations *not* falling properly under the items of *Regulation 3* are to be refused entry unless entry is plainly permissible either under Regulations 2, 14, or 15. Any such plant material properly enterable under Regulations 14 or 15 must be ordered held and reported to Washington, and entry if permitted will be authorized by the board. No restrictions are placed on the entry of plants under Regulation 2 except the determination that they are free from sand, soil, or earth.

General Instructions Relative to the Issuance of Such Emergency Permits Under Regulation 3.

Inspectors should thoroughly understand that these emergency permits are not in any sense to be issued for any plants whatsoever on the ground that they

[1] Inspectors of this board are located at New York, Boston, Philadelphia, Baltimore, New Orleans, Portland, Seattle, and San Francisco.

are *apparently clean* but solely on the ground that they are properly enterable under Regulation 3 of Quarantine No. 37. The issuance of such emergency permits will therefore be unusual or exceptional as probably 99 per cent of the importations would not be so enterable and would have to be refused. In connection with such refusal, pains should be taken to fully explain the reasons for the refusal.

Illustrating the use of emergency permits, such permits may be issued to horticulturists or others who have collected, for instance, scions of fruit trees for the purpose of introduction of new varieties with such scions or to use them as budwood, or who have collected seeds of fruit, forest, ornamental, and shade trees, shrubs, etc. Either of these items are enterable under regulation 3. It is less likely, perhaps, that they will bring in bulbs of the kinds enumerated in item No. 1 of this regulation. The emergency permit is therefore merely to avoid the hardship and the frequent impossibility of such persons, presumably en route to other points, securing a permit by wire from Washington.

The board will view such importations as being analogous to importations from countries without inspection service, and therefore the foreign inspection and certification may be waived, but the plants, etc., should be given thorough inspection and, if necessary, disinfection, and must be free from soil. Printed forms for such permits will be supplied in pads, so that the permits can be issued in triplicate, one copy to be given to the importer, one to be retained by the inspector, and the third to be forwarded to the board. It is not desirable to give undue publicity to this authority, which would lead to demands on the inspectors for the issuance of permits which are not permissible under the quarantine.

These instructions do not apply to commercial shipments of plants enterable under regulation 3. In the case of all such shipments the securing of a permit from Washington in the ordinary way and further compliance with the regulations must be fully met. By commercial shipments is meant shipments of any size whatsoever which are brought in for commercial purposes; in other words, either the immediate or ultimate sale of the plants imported or of their increase.

C. L. Marlatt,
Chairman, Federal Horticultural Board.

REASONS FOR REJECTION OF MISCELLANEOUS PLANT IMPORTATIONS.

HB–137. May 4, 1921.

The majority of the plant enemies of the farms, gardens, and orchards of this country are of foreign origin and for the most part have been brought in miscellaneously with plant importations.

These introduced pests are now costing this country in losses to crops upwards of a billion dollars a year.

The restrictions on the entry of plants now being enforced by the Department of Agriculture under the plant quarantine act of 1912 are to prevent, so far as possible, additional entries of such pests.

There is a particular risk attached to the entries of plants brought personally by travelers and others. Such plants are collected in widely separated parts of the world and usually without any inspection or certification on the part of competent foreign officials or the enforcement of other safeguards which are now required as a condition of plant importations.

The inspection or even disinfection of such plants at the port of entry are not adequate safeguards, inasmuch as many insect pests or plant diseases are not necessarily discoverable, nor can they always be reached and destroyed by disinfection. Furthermore, if entry is allowed, such plants are distributed

widely throughout the United States to the homes of the persons bringing them, where it would be impracticable to follow them up to see whether any new pests develop therefrom.

The department recognizes the sentimental value which often attaches to such plants and regrets very much the necessity for the refusal of entry, but in the administration of a quarantine of this sort for the protection of the whole country exceptions can not be made to individuals without very promptly nullifying the quarantine and subjecting the country again to the risk of frequent invasion by new plant pests as serious as any of those now fully established.

C. L. MARLATT,
Chairman, Federal Horticultural Board.

A VIOLATION OF QUARANTINE NO. 37.

HB-139. JUNE 14, 1921.

The Federal Horticultural Board has secured convincing evidence that P. Hopman & Sons, of Hillegom, Holland, have attempted to violate the plant quarantine act in shipments made by special permit under Regulation 14 of Quarantine 37.

In the case of at least six different shipments made by this concern to American permittees it has substituted, for authorized varieties, varieties not authorized by the permit and has labeled the material with the name of the permitted variety. In private correspondence with the permittee, the exporter has explained the substitution.

In view of these facts the Federal Horticultural Board has ordered as follows:

(1) The substituted material is condemned and is refused entry.

(2) All existing permits issued for importations from P. Hopman & Sons, Hillegom, Holland, are canceled.

(3) No further permits will be issued for importations from P. Hopman & Sons.

C. L. MARLATT,
Chairman, Federal Horticultural Board.

MODIFICATION OF EUROPEAN CORN BORER QUARANTINE.

Amendment No. 6 to Regulations Supplemental to Notice of Quarantine No. 43.

Under authority conferred by the plant quarantine act of August 20, 1912 (37 Stat., 315), as amended by the act of Congress approved March 4, 1917 (39 Stat., 1134, 1165), it is ordered that Regulation 4, under Notice of Quarantine No. 43, quarantining the States of Massachusetts, New Hampshire, New York, and Pennsylvania, on account of the European corn borer (*Pyrausta nubilalis* Hubn.), effective March 29, 1920, be, and the same is hereby, amended to read as follows:

Regulation 4. Inspection and certification a condition of movement from infested areas.

Corn and broom corn (including all parts of the stalk), celery, green beans in the pod, beets with tops, spinach, rhubarb, oat and rye straw as such or when used as packing, cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers or entire plants of gladiolus and dahlia, except the bulbs thereof, without stems, shall not be moved or allowed to move interstate to any point outside the infested area quarantined for the corn borer unless and until such plants and plant products have been inspected by the United States Department of Agriculture and certified to be free from the corn borer. In the case of any of the articles enumerated in this regulation where absolute freedom from infestation can not be determined by the in-

spector of the Department of Agriculture certification will be refused: *Provided*, That in the case of corn and broom corn (including all parts of the stalk), cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers or entire plants of gladiolus and dahlia, except the bulbs thereof, without stems, this quarantine and regulations shall apply throughout the year; in the case of all other products, for the period between June 1 and December 31.

This amendment shall become effective on January 15, 1921.

Done in the District of Columbia this 14th day of January, 1921.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL.] E. D. BALL,
Acting Secretary of Agriculture.

MODIFIES EUROPEAN CORN BORER QUARANTINE REGULATION. (PRESS NOTICE.)

A modification of the European corn borer quarantine announced by the United States Department of Agriculture here to-day eliminates, during the period from January 1 to June 1, the requirement of inspection and certification of celery, green beans in the pod, beets with tops, spinach, rhubarb, and oat and rye straw as such or when used as packing. During this period, it is said, there is no risk from such products even though grown in the infested area.

Most of the products of this class on sale in Boston and shipped out of that city are received from southern points. It is believed, therefore, that the new change in regulation will do away with much unnecessary work and will result in a material saving to the department.

At present the quarantine against the borer extends to the States of Massachusetts, New Hampshire, New York, and Pennsylvania, and regulations govern the movement of articles likely to carry the pest from the infested localities to other parts of the country.

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADVISABILITY OF AMENDING QUARANTINE NO. 41 ON ACCOUNT OF THE EUROPEAN CORN BORER AND OTHER DANGEROUS INSECTS AND PLANT DISEASES WITH RESPECT TO CANADA.

The Secretary of Agriculture has information that the European corn borer (*Pyrausta nubilalis* Hubn.), a dangerous insect not heretofore widely prevalent or distributed within and throughout the United States, occurs in portions of Canada.

It appears necessary, therefore, to consider the advisability of prohibiting the further importation from Canada of celery, green beans in the pod, beets with tops, spinach, rhubarb, oat or rye straw as such or when used as packing, cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers or entire plants of gladiolus and dahlia, except the bulbs thereof, without stems, in addition to the plants and plant products already prohibited or restricted entry by Notice of Quarantine No. 41.

Notice is therefore hereby given that, in compliance with section 7 of the plant quarantine act of August 20, 1912 (37 Stat., 315), a public hearing will be held at the Department of Agriculture, Washington, D. C., Room 11, Entomology Building, at 10 a. m., on June 28, 1921, in order that any person interested in the subject of the proposed amendment of this quarantine may appear and be heard either in person or by attorney.

PUBLIC HEARING ON PROPOSAL TO EXTEND PLANT QUARANTINE—(PRESS NOTICE).

A public hearing to consider the advisability of prohibiting the importation from Canada of certain plants and plant products likely to carry the European

corn borer into this country will be held by the Federal Horticultural Board, United States Department of Agriculture, at Washington, D. C., June 28, 1921, at 10 a. m. Any person interested in the proposed quarantine may appear and be heard either in person or by attorney.

The list of forbidden articles is practically the same as that included in the domestic quarantine on account of the insect, covering portions of New Hampshire, Massachusetts, New York, and Pennsylvania, and includes celery, green beans in the pod, beets with tops, spinach, rhubarb, oat or rye straw as such or when used as packing, cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers or entire plants of gladiolus and dahlia, except the bulbs, without stems.

Following the plan that has been adopted in the United States for preventing the spread of this destructive corn pest, the proposed restrictions as to Canada will be limited to districts actually determined to be infested. The insect was discovered in this country but a few years ago; since then the Federal Horticultural Board has bent strong efforts to prevent its spread. Recent discovery of the pest in Canada presented another source of menace for the board to cope with.

MODIFICATION OF GIPSY MOTH AND BROWN-TAIL MOTH QUARANTINE.

AMENDMENT NO. 1 TO REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 45.

(Effective on and after July 1, 1921.)

Under authority conferred by the plant quarantine act of August 20, 1912, (37 Stat., 315), as amended by the act of Congress approved March 4, 1917, (39 Stat., 1134, 1165), it is ordered that Regulation 3 of the rules and regulations supplemental to Notice of Quarantine 45, on account of the gipsy moth and brown-tail moth, which became effective July 1, 1920, be, and the same is hereby, amended to read as follows:

Regulation 3.—Infested Areas.

The following towns and all the territory between said towns and the Atlantic Ocean are designated as gipsy-moth infested areas:

Gouldsborough, Sullivan, Hancock, City of Ellsworth, Mariaville, Waltham, East Brook, Amherst, Aurora, Plantation 33, Greenfield, Greenbush, Argyle, City of Oldtown, Hudson, Bradford, Charleston, Atkinson, Garland, Dexter, Corinna, St. Albans, Hartland, Athens, Solon, Bingham, Embden, New Portland, Freeman, Salem, Phillips, Weld, Roxbury, Andover, Newry, and Riley, *Maine;* Shelburne, Gorham, Bean's Purchase, Jackson, Bartlett, Hart's Location, Bethlehem, Whitefield, Lancaster, and Northumberland, *New Hampshire;* Lunenburg, *Vermont;* Dalton and Littleton, *New Hampshire;* Barnet, Danville, Peacham, Marshfield, Plainfield, Orange, Corinth, West Fairlee, Strafford, Royalton, Barnard, Bridgewater, Woodstock, West Windsor, Cavendish, Andover, Weston, Landgrove, Londonderry, Winhall, Jamaica, Wardsboro, Dover, Wilmington, Marlboro, Brattleboro, and Vernon, *Vermont;* Northfield, Gill, Greenfield, Deerfield, Montague, Leverett, Amherst, Hadley, South Hadley, Holyoke, West Springfield, Agawam, and Longmeadow, *Massachusetts;* Somers, Stafford, Union, Eastford, Chaplin, Mansfield, Windham, Scotland, Canterbury, Griswold, Preston, Norwich, Bozrah, Ledyard, and Groton, *Connecticut.*

For the purpose of inspection and transportation the above-designated towns and territory quarantined for the gipsy moth are divided into two areas to be known as the Lightly Infested area and the Generally Infested area.

The following towns comprise the Lightly Infested area:

Gouldsborough, Winter Harbor, Sullivan, Sorrento, Hancock, Lamoine, Eden, Mount Desert, Southwest Harbor, Tremont, Swans Island, Trenton, Isle au Haut, Stonington, Deer Isle, Brooklin, Sedgwick, Bluehill, Surry, City of Ellsworth, Mariaville, Waltham, East Brook, Amherst, Aurora, Plantation No. 33, Plantation No. 32, Greenfield, Greenbush, Argyle, Milford, Bradley, Eddington, Clifton, Otis, Dedham, Holden, City of Brewer, Orono, Veazie, City of Oldtown, City of Bangor, Orrington, Bucksport, Orland, Penobscot, Castine, Brookville, North Haven, Vinal Haven, Islesboro, Searsport, Stockton Springs, Prospect, Frankfort, Winterport, Newburgh, Hampden, Hermon, Carmel, Levant, Kenduskeag, Glenburn, Hudson, Corinth, Charleston, Bradford, Atkinson, Garland, Dexter, Corinna, Exeter, Stetson, Newport, Plymouth, Etna, Dixmont, Jackson, Monroe, Brooks, Swanville, Waldo, City of Belfast, Northport, Lincolnville, Camden, Hope, Appleton, Searsmont, Liberty, Belmont, Morrill, Montville, Palermo, Freedom, Knox, Thorndike, Unity, Albion, Burnham, Troy, Detroit, Palmyra, Pittsfield, Hartland, St. Albans, Athens, Bingham, Solon, Cornville, Madison, Norridgewock, Skowhegan, Canaan, Clinton, Fairfield, Smithfield, Oakland, Waterville, Benton, Winslow, Vassalborough, China, Somerville, Washington, Windsor, Sidney, Manchester, Monmouth, Winthrop, Readfield, Wayne, Fayette, Mount Vernon, Belgrade, Rome, Vienna, Chesterville, New Sharon, Mercer, Stark, Industry, Anson, New Vineyard, Embden, New Portland, Freeman, Strong, Salem, Phillips, Avon, Temple, Farmington, Wilton, Jay, Livermore, East Livermore, Leeds, Greene, Turner, Hebron, Oxford, Paris, Buckfield, Hartford, Sumner, Canton, Peru, Franklin, Dixfield, Mexico, Carthage, Perkins, IV, Weld, Roxbury, Andover, Rumford, Newry, Bethel, Milton, Woodstock, Greenwood, Albany, Norway, Otisfield, Harrison, Waterford, Sweden, Fryeburg, Lovell, Stow, Stoneham, Mason, Fryeburg Academy Grant, Batchelders Grant, Gilead, and Riley, *Maine;* Shelburne, Gorham, Beans Purchase, Jackson, Chatham, Bartlett, Conway, Albany, Eaton, Madison, Tamworth, Sandwich, Waterville, Bartl. Co., Harts Location, Livermore, Thornton, Ellsworth, Woodstock, Lincoln, Bethlehem, Whitefield, Dalton, Lancaster, Northumberland, Franconia, Easton, Landaff, Lisbon, Littleton, Lyman, Monroe, Bath, Haverhill, Benton, Piermont, Warren, Orford, Wentworth, Rumney, Campton, Plymouth, Bridgewater, Hebron, Groton, Dorchester, Lyme, Hanover, Canaan, Orange, Alexandria, Danbury, Grafton, Enfield, Lebanon, Plainfield, Grantham, Springfield, Wilmot, New London, Sunapee, Croydon, Newport, Cornish, Claremont, Charlestown, Unity, Goshen, Newbury, Bradford, Washington, Lempster, Acworth, Langdon, Walpole, Alstead, Marlow, Stoddard, Windsor, Hillsborough, Antrim, Hancock, Nelson, Sullivan, Gilsum, Surry, Westmoreland, Chesterfield, Keene, Roxbury, Harrisville, Dublin, Marlboro, Swanzy, Hinsdale, Winchester, Richmond, Troy, Jaffrey, and Fitzwilliam, *New Hampshire;* Lunenberg, Danville, Barnet, Peacham, Marshfield, Plainfield, Groton, Ryegate, Newbury, Topsham, Orange, Corinth, Bradford, Fairlee, West Fairlee, Thetford, Strafford, Royalton, Sharon, Norwich, Hartford, Pomfret, Barnard, Bridgewater, Woodstock, Hartland, Windsor, West Windsor, Cavendish, Weathersfield, Springfield, Chester, Andover, Weston, Landgrove, Londonderry, Windham, Grafton, Rockingham, Westminster, Athens, Brookline, Townshend, Jamaica, Winhall, Wardsboro, Dover, Newfane, Putney, Dummerston, Brattleboro, Marlboro, Wilmington, and Vernon, *Vermont;* Northfield, Warwick, Royalston, Templeton, Phillipston, Athol, Orange, Erving, Gill, Greenfield, Deerfield, Montague, Wendell, New Salem, Petersham, Hubbardston, Barre, Dana, Prescott, Shutesbury, Leverett, Hadley, Amherst, Pelham, Enfield, Greenwich, Hardwick, Oakham, Rutland, Paxton, Leicester, Spencer, New Braintree, North Brookfield, West Brookfield, Brookfield, Warren, Ware, Belchertown, Granby, South Hadley, Holyoke, Chicopee, Ludlow, Wilbraham, Springfield, West Springfield, Agawam, Longmeadow, East Longmeadow, Hampden, Monson, Palmer, Brimfield, Wales, Holland, Sturbridge, Southbridge, Charlton, and Dudley, *Massachusetts;* Somers, Stafford, Union, Woodstock, Eastford, Pomfret, Brooklyn, Hampton, Chaplin, Mansfield, Windham, Scotland, Canterbury, Griswold, Voluntown, Preston, Norwich, Bozrah, Ledyard, Groton, North Stonington, and Stonington, *Connecticut;* Hopkinton, Richmond, Westerly, Charlestown, South Kingstown, Narragansett, and New Shoreham, *Rhode Island.*

All other towns shall be classed as the Generally Infested area.

The following towns and all the territory between said towns and the Atlantic Ocean are designated as brown-tail moth infested area:

Swans Island, Brooklin, Bluehill, Surry, Trenton, Lamoine, City of Ellsworth, Dedham, Bucksport, Orrington, Hampden, City of Bangor, Hermon, Levant,

Kenduskeag, Corinth, Exeter, Stetson, Etna, Plymouth, Palmyra, St. Albans, Hartland, Cornville, Skowhegan, Norridgewock, Stark, Anson, Industry, Farmington, Wilton, Dixfield, Peru, Rumford, Bethel, Gilead, Batchelders Grant, Stow, Fryeburg, and Brownfield, *Maine;* Eaton, Madison, Albany, Waterville, Sandwich, Holderness, Plymouth, Bridgewater, Alexandria, Grafton, Enfield, Grantham, Croyden, Springfield, New London, Newbury, Washington, Lempster, Windsor, Antrim, Hancock, Peterboro, Sharon, and Rindge, *New Hampshire;* Winchendon, Gardner, Westminster, Princeton, Holden, Paxton, Leicester, Oxford, and Douglas, *Massachusetts;* Burrillville, Glocester, Foster, Coventry, West Greenwich, Exeter, Hopkinton, Charlestown, and New Shoreham, *Rhode Island.*

Done in the District of Columbia this 8th day of June, 1921.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL.] HENRY C. WALLACE,
Secretary of Agriculture.

PRESS NOTICE.

Regulation 3, "Infested Areas," of the regulations supplemental to quarantine No. 45 on account of the gipsy moth and the brown-tail moth, has been modified by the Secretary of Agriculture by changing the quarantine lines to correspond with the spread or recession of these insects during the past year.

In 1920 there was considerably more spread westward of the gipsy moth than has been the case for several previous years. This extension involves the inclusion of 62 new towns, as follows:

New Hampshire: Northumberland, Lancaster, Whitefield, Dalton, and Lunenburg.

Vermont: Danville, Peacham, Marshfield, Plainfield, Groton, Orange, Topsham, West Fairlee, Stafford, Royalton, Barnard, Pomfret, Bridgewater, West Windsor, Cavendish, Weston, Andover, Landgrove, Londonderry, Windham, Windhall, Jamaica, Wardsboro, Dover, Newfane, Dummerston, Wilmington, Marlboro, Brattleboro, and Vernon.

Massachusetts: Greenfield, Deerfield, Montague, Leverett, Shutesbury, Pelham, Amherst, Hadley, South Hadley, Granby, Belchertown, Enfield, Ludlow, Chicopee, Holyoke, West Springfield, Wilbraham, Agawam, Longmeadow, East Longmeadow, and Hampden.

Connecticut: Somers, Stafford, Windham, Groton, and Stonington.

It has been found possible to eliminate the town of Berlin, N. H., from the quarantine.

As has been the case during recent years, there has been a reduction in the area infested by the brown-tail moth. A good deal of this decrease is due to the energy of the citizens in clean-up work, to the action of parasites, and to the heavy winter killing of the larvæ in the webs. It has been found possible this year to eliminate the following towns in New Hampshire from the area quarantined on account of this pest: Campton, Nelson, Harrisville, Dublin, Jaffrey, Sullivan, Roxbury, Marlboro, Troy, and Fitzwilliam.

CONTROL STATUS OF THE GIPSY MOTH IN THE UNITED STATES, WASHINGTON CONFERENCE.

HB-140. JUNE 22, 1921.

An informal conference on the gipsy moth situation, for the purpose of determining necessary Federal quarantine extensions, was held in Washington, May 27, 1921. The existing quarantine of New England on account of the gipsy and brown-tail moths makes provision in itself for such additions or curtailments of the quarantine as may be found to be necessary from time to time in accordance with the actual determinations made of the spread or recession of these insects. Certain minor changes in the quarantine line in New England with respect to these insects will be shortly announced.

The main purpose of the conference was to consider the desirability of including under a Federal quarantine the areas of infestation determined in 1920 and 1921 in New Jersey, New York, and Pennsylvania. As a result of this conference and a careful examination of the existing quarantine and control action exercised by these three States, with respect to the known infested areas, it was determined not to extend the Federal quarantine to these States so long as the State quarantines furnished adequate authority to prevent movement of carrying material and provided for the full enforcement of exterminative measures. This action it was felt could be taken safely inasmuch as these quarantines are being administered in cooperation with the Federal Horticultural Board and the Bureau of Entomology of the United States Department of Agriculture and under as complete authority and with as hearty cooperation from the citizens of these States as could be compelled under a Federal quarantine.

With respect to this action, it, however, seemed desirable to issue a statement for the information of the authorities of surrounding and other States, indicating the actual situation with respect to these three States and the control measures being enforced.

Similar action has been taken with respect to several isolated colonies of the gipsy moth far removed from the main area in New England, which have been discovered at various times in past years and in connection with which exterminative measures have been promptly and successfully applied, so that it was deemed unnecessary to bring these areas under Federal quarantine restrictions.

The origin of the infestations in New York, New Jersey, and Pennsylvania, with minor exceptions, is clearly traced to the importation of an enormous block of blue spruce from Holland for ornamental planting on a large estate near Somerville, N. J., before the inspection of foreign stock was made possible by the enactment of the plant quarantine law of 1912. The insect brought in on this spruce slowly developed in a large and dense planting of these trees and began its rapid spread only a year or two before the discovery of the infestation in 1920. During the two years preceding its discovery surplus stock, some of which was infested, was distributed from this estate to the points where infestations have now been located.

This history points very significantly to the possible risk from the large importations which have been made in past years for the adornment of private estates, drawing as they are apt to do plants from all parts of the world. It further indicates the urgent desirability on the part of all State inspection officials to thoroughly inspect any such estates within their jurisdiction to make sure that similar developments may not be taking place therein.

As soon as the gipsy moth infestation was found in New Jersey arrangements were made between the Federal Horticultural Board and the New Jersey State Department of Agriculture that a State quarantine should be declared in order to prevent this insect from being shipped to other parts of the State or to other States. This quarantine was made effective and enforced by the State in cooperation with the Bureau of Entomology. All nurseries or premises from which shipments were being made of plants or other material, likely to carry the gipsy moth, were thoroughly examined—some suspicious places being reinspected several times. In addition, materials likely to carry infestations were not permitted to move unless inspected at time of shipment. This quarantine applies not only to the large area known to be infested but also to the small areas where only a few egg clusters have been found.

Similar quarantine and control action has been taken by New York, and the single Pennsylvania area has been thoroughly cleaned and sprayed.

A detailed statement of the infestations in New York, Pennsylvania, and New Jersey follows:

NEW YORK AND PENNSYLVANIA INFESTATIONS.

Last fall in New York small infestations were found at Garrison (two egg clusters), Jamaica (one egg cluster), Roslyn (four egg clusters), and Brooklyn (four egg clusters). An infestation was also found in Schenectady along the right of way of the Boston & Maine Railroad, resulting from shipments of infested posts in violation of the New England quarantine. Promptly on the discovery of the fact of this shipment the posts and scattered bark and trimmings were carefully examined and all egg masses of the gipsy moth found were destroyed. The railroad company furnished a flat car and engine to afford opportunity to spray on either side of the track for a distance of a mile or more where these posts had been set. This work of spraying has been thoroughly carried out. Very thorough work has also been done in scouting and cleaning up the other infestations in the State, and all the infestations have either already been or will be thoroughly sprayed before the close of the caterpillar season.

In Pennsylvania but one small infestation, on an estate near Altoona, is known, and this has been thoroughly scouted, egg masses creosoted, and the surrounding territory thoroughly examined. The point of infestation, together with a safety border thereabout, has been thoroughly sprayed.

THE NEW JERSEY INFESTATIONS.

In August, 1920, preliminary scouting work indicated an infested area of about 100 square miles in the vicinity of Somerville, N. J., surrounding the original colony. Isolated colonies were also found at other points in the State. At Wyckoff four egg clusters were found and the region has been thoroughly scouted, egg masses creosoted, and the points of infestation, together with a safety border, thoroughly sprayed. At Glen Rock, where four egg masses were found, the same procedure has been carried out. At Paterson one pupa case was found, although the whole township was scouted, and a safety area has been thoroughly sprayed. Twelve egg clusters were found at South Orange, two at Elizabeth, and two at Madison. All the environs of these points were thoroughly scouted, all egg masses creosoted, and a safety area thoroughly sprayed at each point.

At Mendham, 1,400 egg clusters were found in old orchards and on grounds adjacent thereto. The orchards were cut and burned, the egg masses on trees not destroyed creosoted, the entire township scouted, and a large safety area thoroughly sprayed. The origin of this colony has not been determined.

Eighteen egg clusters were found at Deal Beach. All were creosoted, an extensive area scouted, and a large safety area thoroughly sprayed. The blue spruce on which the egg clusters were brought to Deal Beach were hauled over the road from Somerville about the time the caterpillars were hatching in 1920. The route which was taken by the trucks has been scouted without finding any infestation beyond the area known to be infested.

Intensive scouting, after adequate funds became available, of the region surrounding Somerville began about December 1, 1920. The entire territory known to be infested earlier in the season was examined and the egg clusters creosoted, after which the work was extended outward into surrounding townships and all egg clusters creosoted. On May 17, 1921, 410 square miles were known to be infested. About most of this territory a wide border area has been examined and found free of traces of the gipsy moth.

In Hillsboro, the township in which Somerville is located, the infestation was very heavy, more than 3,000,000 egg clusters having been treated. Outside of this township the egg clusters were scattered, most of the colonies found containing not more than one or two clusters. It is evident that the bulk of the spread from the original infestation at Somerville has taken place during the last year or two.

Aside from scouting and treatment of egg clusters already mentioned, extensive spraying operations are being carried on throughout the entire area. Twelve large motor-truck sprayers are being operated throughout the caterpillar season.

The effectiveness of the work is already apparent, as shown by the fact that it is now difficult to find gipsy-moth caterpillars even in the most heavily infested localities.

So far as possible, all shipments of plants from the point of origin in New Jersey have been looked up. These records indicate shipments from this estate, in addition to those already discussed, to Florida, North Carolina, Kentucky, Virginia, Delaware, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, Maryland, Ohio, Indiana, Illinois, Missouri, Minnesota, and Wisconsin. The State inspectors of these States were notified of these shipments and in addition Federal inspectors of the gipsy-moth service have gone to each of these States, with the exception of Minnesota, Wisconsin, and Florida, and have cooperated with the State inspectors. The Florida shipment was inspected on arrival by an inspector of that State who had formerly been employed on the gipsy-moth work and was therefore thoroughly familiar with the insect. Nothing has been found in these States as a result of these inspections. A shipment of deciduous trees from the estate in New Jersey to Buffalo, N. Y., has also been followed up by a thoroughgoing inspection and scouting of all of the plantings in that city, five or six men being engaged in the work for a month or more, and no evidence of carriage of the insect was detected. All of these points of suspicion should be and will be kept under observation.

REGULATIONS GOVERNING THE IMPORTATION OF POTATOES INTO THE UNITED STATES.

Under the Provisions of the Order of the Secretary of Agriculture Issued December 22, 1913.

(Revised Feb. 16, 1921; effective Mar. 1, 1921.)

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Federal Horticultural Board,
Washington, D. C., February 10, 1921.

Hon. E. T. Meredith,
Secretary of Agriculture.

Sir: The Federal Horticultural Board respectfully submits the following revised regulations governing the importation of potatoes into the United States under the provisions of the order of the Secretary of Agriculture issued December 22, 1913. This revision supersedes the regulations as revised December 8, 1915. Three slight changes are made in this revision, namely: (1) The elimination of the provision in Regulation 3 allowing potatoes to enter the United States for immediate transportation in bond to foreign countries without permit. (2) The elimination of the provision for the importation of potatoes from the Island of Santo Domingo. No importations of potatoes have been made from Santo Domingo, and furthermore there has been no compliance on the part of

the Santo Domingan authorities with the requirements of the regulations under which entry may be permitted. (3) The addition of a new regulation (Regulation 7) to incorporate the provisions of the three amendments which have been issued subsequent to the revision of December 8, 1915. These amendments are:

No. 1, making special provision for the importation of potatoes from the Territory of Porto Rico and from the States of Chihuahua and Sonora, Mexico, and the Island of Santo Domingo, issued December 8, 1915.

No. 2, amending the regulations so as to permit free of any restrictions whatsoever under the plant quarantine act of August 20, 1912, the importation of potatoes from any foreign country into Hawaii for local use only, and from the Dominion of Canada and Bermuda into the United States or any of its Territories or districts, issued June 4, 1917.

No. 3, revising amendment No. 1 by providing additional ports for the entry of potatoes from the States of Chihuahua and Sonora, Mexico, issued September 2, 1920.

C. L. Marlatt,
Chairman, Federal Horticultural Board.

REGULATIONS GOVERNING THE IMPORTATION OF POTATOES INTO THE UNITED STATES, UNDER THE PROVISIONS OF THE ORDER OF THE SECRETARY OF AGRICULTURE, ISSUED DECEMBER 22, 1913.

Regulation 1. Definition.

For the purpose of these regulations the term "potato" shall be understood as meaning the common or Irish potato (*Solanum tuberosum*) and its horticultural varieties.

Regulation 2. General Conditions Governing Potato Importations.

Potatoes will be admitted from any country or well-defined district thereof, such as a Province or a State or a larger subdivision of such country, not specifically mentioned in Notice of Quarantine No. 3, issued September 20, 1912, or in any quarantine which may hereafter be in force, when it is determined by adequate field inspection conducted by recognized experts of the country concerned that such country or district thereof is free from potato wart and other injurious potato diseases and insect pests, and such country must further agree to examine and certify all potatoes offered for export in compliance with these regulations: *Provided*, That in the case of foreign countries contiguous to the United States the examination and certification of potatoes offered for export will be waived when such country shall agree to offer for export to the United States only potatoes free from injurious diseases and insect pests: *Provided further*, That the entry of potatoes will not be permitted from any country unless such country either has an effective quarantine prohibiting the entry into such country or district thereof of potatoes from any country or district under quarantine by the United States, or forbids by law the exportation to the United States of all potatoes not grown within the country, or district or locality thereof, from which the potatoes are exported.

Entry of potatoes will not be allowed unless the invoice is accompanied by an original certificate and unless each container bears a copy certificate in accordance with Regulation 5.

Potatoes will be admitted into the United States only through the port designated in the permit.

The entry of potatoes will not be permitted except where the shipments pass directly from the country of origin to the port of entry in the United States: *Provided*, That when transshipment is necessary at a port of a country under quarantine such transshipment shall be made by lighters from boat to boat in the harbor without landing the potatoes, and the consular invoice of place of origin must follow the shipment from original port of departure to the port of entry in the United States.

No shipment of potatoes will be permitted entry until it has been examined by an inspector of the Department of Agriculture and found or believed to be free from the potato wart and other injurious potato diseases and insect pests.

Shipments of potatoes certified as provided herein found to be infested with potato wart or other injurious potato diseases, or with insect pests, will be refused entry.

All charges for storage, cartage, and labor incident to inspection, other than the services of inspectors, shall be paid by the importer.

Except in case of bulk shipments, potatoes shall be contained only in bags, boxes, barrels, or other containers that have not previously been used for potatoes.

Regulation 3. Applications for Permits for Importation of Potatoes.

Persons contemplating the importation of potatoes shall first make application to the Federal Horticultural Board, Department of Agriculture, Washington, D. C., for a permit, stating in the application the name and address of the exporter, the country and locality where grown, the port of departure (or port of consular invoice), the proposed port of entry, and the name and address of the importer in the United States to whom the permit should be sent.

Applications for permits must be made in advance of the shipment of the potatoes.

Applications may be made by telegraph, in which case the information required above must be given.

FORM OF APPLICATION FOR PERMIT TO IMPORT POTATOES.

_____, 19 .

To the Federal Horticultural Board, Washington, D. C.

SIRS: A permit is requested for the importation of potatoes, as described below, during the period _____, 19 , to June 30, 19 :

Quantity.	Probable date of shipment.

Name and address of exporter_____

Country where grown_____

Locality where grown_____

Port of departure_____

Port of entry_____

Name and address of person (either applicant or his agent or broker) to whom permit should be mailed_____

Very respectfully,

_____
(Name of applicant.)

_____
(Address.)

Regulation 4. Permits for Entry of Potatoes.

On approval by the Secretary of Agriculture of an application for the importation of potatoes a permit will be issued in quadruplicate. One copy of the permit will be furnished to the applicant, to be retained by him for presentation on the arrival of the imported potatoes to the customs officer at the port of entry named in the permit, one copy will be mailed to the collector at the port of entry, one to the inspector of the Department of Agriculture, and the fourth filed with the application. The beginning of the period for which a

permit will be valid will be expressed in the permit. All permits will expire on the 30th day of June next after they become valid.

Permits for the entry of potatoes may be refused and existing permits may be canceled on proof that the certificate of inspection does not correctly give the locality where the potatoes were grown, character of the shipment as to freedom from disease or insect infestation, or that the containers have been previously used for the shipment of potatoes.

Permits for the entry of potatoes will be addressed to the collector of customs at the port of entry in the following form:

UNITED STATES DEPARTMENT OF AGRICULTURE,

FEDERAL HORTICULTURAL BOARD,

WASHINGTON, D. C.

PERMIT TO IMPORT POTATOES.

Valid_____, 19 . to June 30, 19

_____, 19 .

To the Collector of Customs, _____

You are hereby authorized, so far as the jurisdiction of the Department of Agriculture is concerned, to permit the entry, under the plant quarantine act, approved August 20, 1912, of the potatoes described herein upon receipt of notice in writing from an inspector of the Department of Agriculture that such potatoes have been inspected by him or under his direction and found or believed to be free from injurious potato diseases and insect pests, provided the invoice of each shipment is accompanied by an original certificate issued by a duly authorized official of the country from which the shipment is made and each container bears a copy of this certificate, in conformity with Regulation 5.

Quantity.	Probable date of shipment.

Name and address of exporter_____
Country and locality where grown_____
Name and address of importer_____

Respectfully,

E. T. MEREDITH,
Secretary of Agriculture.

Countersigned:

_____
Chairman of Board.

_____
Permit Clerk.

Regulation 5. Foreign Certificate of Inspection.

Each certificate shall give the number of the permit; the date of inspection; name and address of the exporter; the district or locality and the country where grown; name and address of consignee; a statement that the potatoes were grown in a district free from infection with potato wart and have been certified by a duly authorized official to be free from potato wart and other injurious potato diseases and insect pests, and that they are contained in bags, boxes, barrels, or other containers that have not previously been used for potatoes, except as to bulk shipments. The original certificate shall be signed and sealed by a responsible inspection official for the country of origin. The

copy certificate may be entirely printed, including the seal. The form of such certificate shall be as follows:

To whom it may concern:

This is to certify that the potatoes included in this shipment as per invoice attached, shipped under permit No. _____, consigned to _____
(Name and address of consignee.)
shipped by _____, were grown in _____
(Name and address of exporter.)
_____, a district free from infection with potato wart, are contained in bags, boxes, barrels, or other containers, except as to bulk shipments, not previously used for potatoes, and were certified by _____, _____, to be free from potato wart and other injurious potato diseases and insect pests.

[SEAL.] (Signed) _____,
_____.
(Title of official inspector.)

Permits may be canceled and further permits refused for the importation of potatoes from any country whenever such potatoes, in the judgment of the Federal Horticultural Board, are found to be so infested as plainly to indicate that the foreign inspection is merely perfunctory.

Lists of officials in foreign countries authorized to inspect potatoes, giving their names and official designations, will be furnished to collectors of customs through the Secretary of the Treasury.

Regulation 6. Notice of Arrival of Potatoes by Permittee.

Immediately upon arrival and before unloading from the vessel or other carrier the permittee shall notify the Secretary of Agriculture, on forms provided for that purpose, stating the number of permit, the quantity of potatoes included in the shipment, the country and locality where grown, the name and address of exporter or shipper, the port of departure, the date of arrival, and the name of the ship or vessel if transported by water, and the designation of the dock where the potatoes are to be landed, and, if by rail, the name of the railroad company, the car numbers, and the terminal where the potatoes are to be unloaded. If the destination of the car is changed en route the permittee shall immediately notify the Secretary of Agriculture of the final destination.

At the same time a copy of the notice to the Secretary of Agriculture shall be sent by the permittee to the duly authorized inspector of the department at the port of entry designated in the permit.

Permits may be canceled and other permits refused if the permittee fails to give either of said notices or gives a false notice.

Lists of such inspectors and officers may be ascertained from the collector of customs or the Federal Horticultural Board, Washington, D. C.

Regulation 7. Special Provision for the Importation of Potatoes from Foreign Countries into Hawaii and Porto Rico, and from the Dominion of Canada and Bermuda, and the States of Chihuahua and Sonora, Mexico, into the United States.

Potatoes from any foreign country may be imported into the Territories of Hawaii and Porto Rico for local use only, free of any restrictions whatsoever, until otherwise ordered, under the plant quarantine act of August 20, 1912.

Potatoes may be imported from the Dominion of Canada and Bermuda into the United States or any of its Territories or Districts, free of any restrictions whatsoever until otherwise ordered, under the plant quarantine act of August 20, 1912.

Potatoes may be imported from the States of Chihuahua and Sonora, Mexico, into the United States, subject only to the following conditions and restrictions, which must be strictly observed and complied with:

(*a*) Persons contemplating the importation of potatoes from the States of Chihuahua and Sonora, Mexico, shall first make application for a permit, in the manner and form as prescribed in Regulation 3, and upon approval by the Secretary of Agriculture of such application a permit will be issued.

(*b*) Importations from the States of Chihuahua and Sonora, Mexico, will be permitted entry only through the ports of El Paso, Tex., and Douglas, Naco, and Nogales, Ariz., respectively.

(*c*) The requirements contained in Regulation 6 in regard to the sending of notice of arrival of shipment shall be complied with by the permittee.

(*d*) No shipment of potatoes from the States of Chihuahua and Sonora, Mexico, will be permitted entry until it has been examined by an inspector of the United States Department of Agriculture and found, or believed to be, free from dangerous potato diseases and insect pests.

The above regulations are hereby adopted and shall be effective on and after March 1, 1921, and shall supersede the regulations governing the importation of potatoes into the United States, which were promulgated to take effect on and after January 1, 1916.

E. T. MEREDITH,
Secretary of Agriculture.

FEBRUARY 16, 1921.

FEDERAL HORTICULTURAL BOARD.

WASHINGTON, D. C.

FORM FOR IMPORTER OR BROKER'S REPORT TO THE DEPARTMENT OF AGRICULTURE.

In compliance with section 2 of the plant quarantine act of August 20, 1912, and Regulation 6 of the regulations governing the importation of potatoes into the United States, the information provided for in this blank must be given by the permitee or his representative to the Secretary of Agriculture, Washington, D. C., immediately upon arrival of the potatoes and before such potatoes are unloaded from the vessel or other carrier.

At the same time a copy of the notice to the Secretary of Agriculture shall be sent by the permittee to the duly authorized inspector of the department at the port of entry designated in the permit.

E. T. MEREDITH,
Secretary of Agriculture.

_____, 19__.

The Federal Horticultural Board, Washington, D. C.:

The following potatoes, imported under Permit No. _____, shipped from _____
(Port of departure.)
consigned to _____
(Name of importer or broker at port of entry.)
_____ arrived _____, 19__,
(Port of entry.)
on _____ dock _____
(Name of vessel and steamship line.)
or _____
(Name of railroad company.) (Car number.) (Location of terminal.)
Country and locality where grown _____
Foreign shipper _____
(Name and address.)

Quantity.	Nature of containers (sacks, boxes, etc.).

_____
(Name of importer or broker at port of entry.)

_____
(Address.)

PROHIBITION OF ENTRY OF POTATOES FROM IRELAND TO BE MAINTAINED.

[Letter at the instance of this department addressed by the Department of State to the British ambassador in Washington.]

JANUARY 27, 1921.

Mr. R. LESLIE CRAIGIE,
Chargé d'Affaires ad interim of Great Britain.

SIR: I have the honor to advert to the ambassador's note No. 767 of November 26, 1920, and to the department's acknowledgment of December 9, 1920, relative to the desire of the Department of Agriculture and Technical Instruction for Ireland to reopen negotiations regarding the removal of the embargo on the importation from Ireland of potatoes into the United States.

The Department of Agriculture, to which was transmitted a copy of the ambassador's note, expresses the opinion that the risk attached to importations of Irish potatoes still exists. It is stated that the diseases referred to have during recent years become much more widespread in Great Britain; and there is, so far as the Department of Agriculture is informed, no restriction on commerce in plants carrying soil around their roots, by which means potato diseases might readily be carried from Great Britain to Ireland. The intimate commercial relations and close geographical proximity of Ireland to Great Britain, where potato wart is well established, make it seem probable that the disease has been carried repeatedly from one island to the other. It seems important to guard against the possible inadvertent introduction of this disease into the United States on apparently healthy potatoes grown in Ireland. Since many of the European varieties of potatoes of high commercial value are immune to wart, the presence of the disease in the Irish fields might easily remain undiscovered there and yet constitute a serious source of danger to the United States. Not only do certain wild hosts afford the disease an opportunity to propagate in inconspicuous form; but, in the absence of such means of perpetuation and multiplication, the spores of the fungus live for a long period of years in the soil and may be carried in soil particles on potatoes and other products grown in fields where they are present, even when the products themselves have never been diseased. In other words, the absence of visible evidence of infection on potatoes grown in regions open to suspicion can not be accepted as sufficient guaranty of freedom. No inspection, therefore, would appear to insure safety.

Further doubt concerning the freedom of Ireland from potato wart is created by the information that has recently come to the Department of Agriculture that the prevailing types of potatoes grown in Ireland are resistant to potato wart. Consequently, their freedom from disease does not insure the absence of the parasite from the country.

To modify the quarantine against potatoes from Ireland would involve a radical change in the entire policy of the Department of Agriculture relative to the precautions to be taken against the introduction of the disease from other countries. If permits are granted for Ireland, it would seem necessary to deal with similar requests from Sweden, where the Government authorities report the localization of the disease in one part of the country; from the Netherlands, where potato wart is said to occur only in the Province of Groningen; and eventually from other countries where potatoes are grown. A principle established in this way with reference to potatoes might also have to be applied to other crops under similar conditions, with the result that the protec-

tion given by the existing quarantine to the agriculture of the United States would be seriously diminished.

The reference in the ambassador's note to the removal of the restrictions on the importation of potatoes from Santo Domingo and the States of Chihuahua and Sonora, Mexico, has, in the opinion of the Department of Agriculture, no real bearing on the matter under discussion, for the reason that the potato wart disease is not known to occur in those regions.

It may be pointed out further that the quarantine laid by the Department of Agriculture on account of the potato wart disease is an absolute quarantine. The regulations governing the importation of potatoes into the United States, under which no potatoes whatever may be imported except under permit from the Department of Agriculture, apply only to countries where the potato wart is not known to exist. Since the establishment of the potato wart quarantine it has been learned that the disease occurs in a small portion of the Netherlands and in an isolated locality in Sweden. While the quarantine has not been modified to include the Netherlands and Sweden, the same result has been achieved by refusal to issue permits for the importation of potatoes from these countries.

In view of these considerations, therefore, the Department of Agriculture regrets that it is unable to comply with the request embodied in the ambassador's note of November 26, 1920.

Accept, sir, the renewed assurance of my high consideration.

For the Secretary of State.

NORMAN H. DAVIS,
Under secretary.

NURSERYMEN ASKED TO COOPERATE IN ENFORCEMENT OF BLISTER-RUST QUARANTINE.

[News item, Mar. 29, 1921.]

Many illegal shipments of currant and gooseberry bushes and five-leafed pines have been made in the past four years, a large majority of them by nurserymen. An analysis of the violations of blister-rust quarantines which have been discovered shows that out of a total of 122, 49 nurseries were responsible for 105 of these prohibited shipments.

White pines were discovered, in a few shipments, under the name of "Jack pine," or other yellow pines. Violations have occurred from Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Illinois, Indiana, Louisiana, and Alabama. Some of the shipments were made from regions infected with blister rust, and a few came from nurseries known to have diseased stock the previous year.

All such violators of this quarantine will be prosecuted. A number of convictions have already been secured. A force of inspectors is in the field and drastic action will be taken to make the quarantine effective.

The cooperation of all nurserymen is requested in upholding the Federal and State blister-rust quarantines. Federal Quarantine No. 26, effective June 1, 1917, prohibits the shipment of five-leafed pines, currants, or gooseberries (the host plants of the blister rust) from points east of and including Minnesota, Iowa, Missouri, Arkansas, and Louisiana to points west of these States. This quarantine also prohibits the shipment of five-leafed pines and black currants from New England and New York to any point outside of these States, and prohibits, further, the shipment of five-leafed pines and black-currant plants from the New England States into the State of New York. These regulations

are made to prevent the introduction of the blister rust into uninfected regions by the transportation of diseased host plants from infected areas, and especially to protect the valuable western white pine forests. A single shipment of infected stock may cause colossal loss.

In order that common carriers and nurserymen may know the Federal blister-rust quarantine laws, and the regions to which they apply, a poster has been printed, giving this information and is being sent to all nurserymen in the East, as well as certain freight and express agents and postmasters. Additional copies may be secured from the Federal Horticultural Board at Washington, D. C. It is realized that carelessness on the part of nursery employees frequently is responsible for illegal shipments. It is desirable that this poster be placed in packing sheds as a reminder of shipping restrictions.

Blister rust is widespread throughout New England, New York, western Wisconsin, and northeastern Minnesota. Five-leafed pines, currants, and gooseberries shipped into the West prior to enactment of quarantine have been inspected, and no trace of the disease has been found west of the Great Plains. The western white and sugar pine forests comprise 55 billion feet of timber, and young growth of these species has exceptional value in future forest management. The safety of these forests depends upon keeping out the blister rust. This can be done if the Federal regulations are observed. Failure to do so jeopardizes one of our most valuable forest resources. It is an act of good citizenship to aid in protecting our western forests by making special efforts to comply with this quarantine order.

NURSERYMEN WARNED AGAINST MISUSE OF STATE CERTIFICATION.

[Press notice, Apr. 25, 1921.]

Misuse of State certification in shipments of currant and gooseberry plants by nurserymen affected by Federal quarantine No. 26 against pine-blister rust may be prosecuted as a violation of the quarantine, it was declared by the Federal Horticultural Board, United States Department of Agriculture, to-day.

Several nurserymen in the area covered by the quarantine, it is said, have made arrangements to have orders for currant and gooseberry plants from points outside the quarantined area filled by nurserymen west of the quarantine line. There is no objection to this practice, it is declared, but there is a very decided objection to a misuse of State certificates in connection with such shipments. A number of instances have come to the notice of the board in which the tag of the firm situated in the quarantined area, bearing the inspection certificate of the State in which the firm is located, has been attached to the shipment.

The use of such certificates, it is said, under the circumstances given is not only fraudulent but is likely to be very much to the ultimate disadvantage both of the shipper and the receiver of the stock. Both State and Federal inspectors, it is pointed out, must take the evidence of the shipping tag and certification, and persons making such misuse of shipping tags and certificates run the risk not only of being prosecuted as violators of the quarantine but of having the stock seized and destroyed or refused entry into the State of destination.

Nurserymen who have engaged in this practice, says the board, are therefore warned of the risk involved. The certification of such goods should be made by the officials of the State from which the shipment is actually made.

DIGEST OF STATE QUARANTINES ON ACCOUNT OF WHITE-PINE BLISTER RUST.

Alphabetical list by States, giving numbers for cross-reference to State and national regulations, concerning the shipment of five-leafed pines and Ribes (currants and gooseberries).

(NOTE OF EXPLANATION: If you are buying white pines or Ribes from outside your own State, look up the State in which you are located; if you are selling, look up the State to which you desire to ship.)

State.	White pines.	Ribes.	State.	White pines.	Ribes.	State.	White pines.	Ribes.
Alabama	2	16	Louisiana	2	16	Ohio	2	16
Arizona	1	15	*Maine	6	18	Oklahoma	1	15
Arkansas	2	16	Maryland	10	22	Oregon	1	15
California	1	15	Massachusetts	4	18	Pennsylvania	3	20
Colorado	1	15	Michigan	5	23	*Rhode Island	4	20
Connecticut	4	16	Minnesota	13	25	South Carolina	3	17
Delaware	7	21	Mississippi	2	16	South Dakota	1	15
District of Columbia	2	16	Missouri	2	16	Tennessee	14	27
Florida	2	16	Montana	1	15	Texas	1	15
Georgia	3	17	Nebraska	1	15	Utah	1	15
Idaho	1	15	Nevada	1	15	Vermont	3	16
Illinois	11	26	*New Hampshire	3	17	Virginia	2	16
Indiana	2	16	New Jersey	9	16	Washington	1	15
Iowa	2	16	New Mexico	1	15	West Virginia	3	17
Kansas	1	15	*New York	8	19	Wisconsin	12	16
Kentucky	2	16	North Carolina	7	24	Wyoming	1	15
			North Dakota	1	15			

The State and National laws from which this data was compiled were those in force April 14, 1920, according to the information on hand in this office that date. While the authors do not hold themselves responsible for correctness, yet the digest of regulations has been submitted to the State authorities and in all cases has it been approved by them.

*States which are starred have regulations regarding the planting of five-leafed pines or Ribes. Purchasers in these States who contemplate planting these species should acquaint themselves with the State regulations.

STATE AND NATIONAL REGULATIONS RELATIVE TO THE SHIPMENT OF FIVE-LEAFED PINES ON ACCOUNT OF THE WHITE PINE BLISTER RUST.

1. Orders received for five-leafed pine stock from any State west of the western boundary of Minnesota, Iowa, Missouri, Arkansas, and Louisiana may be filled by any nursery in any State west of the above-mentioned boundary, but by no nursery in any State east of this boundary.

2. Orders received from Alabama, Arkansas, District of Columbia, Florida, Indiana, Iowa, Kentucky, Louisiana, Mississippi, Missouri, Ohio, and Virginia may be filled by any nursery in any State except the New England States and New York.

3. Orders received from Georgia, New Hampshire, Pennsylvania, South Carolina, Vermont, and West Virginia may not be filled by any nursery outside of each respective State.

4. Orders received from Connecticut, Massachusetts, and Rhode Island may be filled by any nursery in any State.

5. Orders received from Michigan may be filled by any nursery outside of the New England States, New York, Minnesota, and Wisconsin, but only under special permit from the State nursery inspector at East Lansing.

6. Orders received from Maine may be filled by any nursery in any State, but only under special permit from the Maine forest commissioner at Augusta.

7. Orders received from Delaware or North Carolina may be filled by any nursery in any State except the New England States, New York, New Jersey, Ohio, Pennsylvania, Michigan, Wisconsin, and Minnesota.

8. Orders received from New York may be filled by any nursery in any State except the New England States, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Minnesota, and Wisconsin.

9. Orders received from New Jersey may be filled by any nursery in any State except the New England States, New York, Pennsylvania, Michigan, Wisconsin, and Minnesota.

10. Orders received from Maryland may be filled by any nursery in any State except the New England States, New York, New Jersey, Pennsylvania, Illinois, Michigan, Wisconsin, and Minnesota.

11. Orders received from Illinois may be filled by any nursery in any State except the New England States, New York, Pennsylvania, New Jersey, Ohio, Minnesota, Wisconsin, and Michigan.

12. Orders received from Wisconsin may be filled by any nursery in any State except the New England States, New York, and Minnesota.

13. Orders received from Minnesota may be filled by any nursery in any State except the New England States, New York, New Jersey, Pennsylvania, Ohio, Wisconsin, and Michigan.

14. Orders received from Tennessee may be filled by any nursery west of the western line of Minnesota, Iowa, Missouri, Arkansas, and Louisiana.

STATE AND NATIONAL REGULATIONS REGARDING THE SHIPMENT OF RIBES (CURRANTS AND GOOSEBERRIES) ON ACCOUNT OF THE WHITE-PINE BLISTER RUST.

15. Orders received for Ribes from any State west of the western boundary of Minnesota, Iowa, Missouri, Arkansas, and Louisiana may be filled by any nursery in any State west of the above-mentioned boundary, but by no nursery in any State east of this boundary.

16. Orders from Alabama, Arkansas, District of Columbia, Florida, Indiana, Iowa, Kentucky, Louisiana, Mississippi, Missouri, New Jersey, Ohio, Virginia, and Wisconsin for Ribes may be filled by any nursery in any State, except *Ribes nigrum*, which may not be shipped into these States from New York and the New England States. Orders from Connecticut and Vermont for all Ribes may be filled by any nursery in any State.

17. Orders from Georgia, New Hampshire, South Carolina, and West Virginia for Ribes may not be filled by any nursery outside of each respective State.

18. Orders from Maine and Massachusetts for Ribes may be filled only under special permit from the Maine State forest commissioner and the Massachusetts commissioner of agriculture, respectively.

19. Orders from New York for all Ribes may be filled by any nursery in any State with this exception: *Ribes nigrum* may not be shipped into New York from the New England States.

20. Orders from Pennsylvania for all Ribes except *Ribes nigrum*, and orders from Rhode Island for all Ribes may be filled by any nursery in the country. In Rhode Island the planting of black and flowering currants is not permitted.

21. Orders from Delaware for all Ribes may be filled by any nursery in the country with this exception: Black currants may not be shipped into Delaware from New England, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, and Minnesota.

22. Orders from Maryland for all Ribes may be filled by any nursery in any State except the New England States, New York, New Jersey, Pennsylvania, Michigan, Wisconsin, Minnesota, and Illinois.

23. Permits from the Michigan State nursery inspector are required before Ribes may be shipped into Michigan from Minnesota, Wisconsin, New England, and New York except red and white currants grown in or near Fredonia, Rochester, Geneva, Newark, and Danville, N. Y.; no permits being required from States not above mentioned. No black currants are permitted entrance from New England and New York.

24. Orders from North Carolina for all Ribes may be filled by any nursery in any State except the New England States, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, and Minnesota.

25. Orders from Minnesota for Ribes may be filled by any nursery in any State, provided the stock has been stripped of all leaves, except in the case of *Ribes nigrum*, which is prohibited entrance.

26. Orders from Illinois for all Ribes may be filled by any nursery in any State outside of the New England States, except that *Ribes nigrum* is prohibited entrance from New York, Pennsylvania, New Jersey, Ohio, Minnesota, Wisconsin, and Michigan.

27. Orders from Tennessee for Ribes may be filled by any nursery west of the western line of Minnesota, Iowa, Missouri, Arkansas, and Louisiana.

NOTE.—The digest of quarantines has been revised to conform to the change in regulations of the following States: Delaware, October 23, 1920; Michigan, October 28, 1920.

ROY G. PIERCE,
Forest Pathologist.
WILLIAM E. PICKLER,
Assistant in White-Pine Blister-Rust Eradication.

U. S. Department of Agriculture, Bureau of Plant Industry, Office of Blister Rust Control.

Revised to January 28, 1921.

QUARANTINE ON ACCOUNT OF MEXICAN BEAN BEETLE.

NOTICE OF QUARANTINE NO. 50, WITH REGULATIONS.

(*Effective on and after May 1, 1921.*)

The fact has been determined by the Secretary of Agriculture, and notice is hereby given, after due hearing held, as required by law, that an injurious insect, the Mexican bean beetle (*Epilachna corrupta* Muls.), new to and not heretofore widely distributed within and throughout the United States, exists in portions of the State of Alabama, and that, by reason thereof, it is necessary to quarantine the said State.

Now, therefore, I, Henry C. Wallace, Secretary of Agriculture, under authority conferred by section 8 of the plant quarantine act, approved August 20, 1912 (37 Stat., 315), as amended by the act of Congress approved March 4, 1917 (39 Stat., 1134, 1165), do hereby quarantine the State of Alabama and, by this Notice of Quarantine No. 50, do order that the following plants and plant products shall not be moved or allowed to move interstate in manner or method or under conditions other than those prescribed in the rules and regulations supplemental hereto, according as said rules and regulations provide for a difference in enforcement in the areas therein designated as infested or noninfested: (1) Fresh or green cultivated beans, including all common garden or field beans, whether string, snap, or shell beans, and including all lima beans, California black-eyed peas or beans, and all green cowpeas and soy beans, but not including velvet beans or English peas or thoroughly dried and cleaned shelled beans or peas of any kind; (2) all forms of "greens," or edible plant leaves, such as those of mustard, chard, spinach, turnips, beets, collards, cabbage, and lettuce, and green corn ("roasting ears"), and matured corn in the shuck; and (3) hay, and similar forage crops, including alfalfa and pea-vine

hay and corn stover, whether baled or loose, and also such forage crops when included with shipments of live stock.

Done in the District of Columbia this 8th day of April, 1921.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL.] HENRY C. WALLACE,
Secretary of Agriculture.

RULES AND REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 50.

Regulation 1. Definitions.

For the purpose of these regulations the following words, names, and terms shall be construed, respectively, to mean:

(*a*) Mexican bean beetle: The insect known scientifically as *Epilachna corrupta* Mulsant.

(*b*) Quarantined area: Any State, or any portion thereof, quarantined by the Secretary of Agriculture, upon determination by him that the Mexican bean beetle exists therein.

(*c*) Infested area: Those portions of a quarantined area which are determined by the Secretary of Agriculture to be infested with the Mexican bean beetle.

(*d*) Inspector: An inspector of the United States Department of Agriculture.

Regulation 2. Plants and plant products subject to restriction.

The restriction on the movement of plants and plant products set forth in this Notice of Quarantine No. 50 and in these rules and regulations supplemental thereto shall apply to all products therein enumerated originating in or moving from any areas in the State of Alabama.

Regulation 3. Infested areas.

The infested areas are described and defined as follows: Beginning at the northwestern corner of Cullman County and extending eastward on the northern edge of Cullman County to the road leading from Cullman via Arab and Warrenton to Guntersville in Marshall County; thence following the Tennessee River northeastward to the Tennessee State line; thence along the Alabama State line eastward to the Georgia State line; thence southward along the Alabama-Georgia line to the southeastern corner of Cleburne County and including by their eastern and southern boundaries all of the counties of Cleburne, Clay, Coosa, and Chilton; thence from the southwestern corner of Chilton County via the road leading westward from Morrowsville and Sprott to Marion in Perry County; thence northwestward via the Marion and Morgan Springs road to Edith and by the eastern boundary of Hale County to its intersection with the Tuscaloosa County line; thence westward and northward along the boundaries of Tuscaloosa County to the Fayette County line; thence through Hico, Fayette, Ballard, and to the Marion County line near Winfield; thence along the southern and eastern boundaries of Marion County and the northern boundary of Winston County to the point of beginning at the northwestern corner of Cullman County.[1]

Regulation 4. Regulation of movement of plants and plant products originating in infested areas.

(1) Fresh or green cultivated beans, including all common garden or field beans, whether string, snap, or shell beans, and including all lima beans, California black-eyed peas or beans, and all green cowpeas and soy beans, but not including velvet beans or English peas or thoroughly dried and cleaned shelled beans or peas of any kind; (2) all forms of "greens," or edible plant leaves, such as those of mustard, chard, spinach, turnips, beets, collards, cabbage, and lettuce, and green corn ("roasting ears"), and matured corn in the shuck; and (3) hay, and similar forage crops, including alfalfa and peavine hay and corn stover, whether baled or loose, and also such forage crops when included with shipments of live stock, shall not be moved or allowed to be moved inter-

[1] This area corresponds with the area designated in the Alabama State Quarantine No. 29, which became effective Nov. 20, 1920, on account of this pest, and which is accompanied by a map.

state to any point outside the infested area quarantined for the Mexican bean beetle unless and until such articles have been inspected by the United States Department of Agriculture and certified to be free from the Mexican bean beetle: *Provided*, That in the case of all forms of "greens," or edible plant leaves, such as those of mustard, chard, spinach, turnips, beets, collards, cabbage, and lettuce, and green corn ("roasting ears"), this quarantine and these regulations shall apply for the period between April 1 to November 30; in the case of matured corn in the shuck, for the period between October 1 and May 31, and in the case of all other products, throughout the year: *Provided further*, That this quarantine and these regulations shall not apply to root crops from which the tops have been completely removed, or to peanuts, tomatoes, cantaloupes, watermelons, berries, grapes, nuts, or tree fruits.[2]

Regulation 5. Inspection, certification, and marking a condition of interstate transportation.

Each car, vehicle, box, basket, or other container of the restricted articles, enumerated in Regulation 4, shall be plainly marked with the name and address of the consignor and the name and address of the consignee, and shall bear a certificate stating that the contents have been inspected by the United States Department of Agriculture and found to be free from the Mexican bean beetle: *Provided*, That in the case of such articles moved in carload or other bulk shipments, the certificate of inspection shall accompany the waybills, conductors' manifests, memoranda, or bills of lading; or, in case of truck or other road vehicle, the certificate of inspection shall accompany the vehicle: *Provided further*, That, in the case of any farm or district, within the infested area, on which the Mexican bean beetle is not known to exist, shipments from such farm or district, in bulk or small packages, may be authorized under a permit (valid until revoked) stating that such farm or district has been inspected by the United States Department of Agriculture and found free from the Mexican bean beetle. Copies of such permits shall be attached to small packages, or, in the case of bulk shipments, to waybills, conductors' manifests, memoranda, or bills of lading pertaining thereto, and shall be accepted by transportation companies in lieu of certificate of inspection.

Regulation 6. Conditions governing inspection and issuance of permits.

Persons intending to move or allow to be moved interstate any of the articles enumerated in Regulation 4, for which certificates of inspection or permits are required by these regulations, will make application therefor as far as possible in advance of the probable date of shipment. Applicants for certificates will be required to assemble the articles at such points as the inspector of the Department of Agriculture shall designate, and so to place them that the inspection may readily be made. All charges incident to inspection and certification other than the services of the inspectors, shall be paid by the shipper.

Regulation 7. Thorough cleaning required of vehicles before moving interstate.

Railway cars, trucks, wagons, boats, and other vehicles which have been used in transporting any article covered by this quarantine within the infested district shall not be moved or allowed to be moved interstate unless the same shall have been thoroughly swept and cleaned before they are employed in interstate transportation.

Regulation 8.—Regulation of movement of quarantined plants and plant products originating in noninfested areas.

All plants and plant products, the movement of which is restricted by Quarantine No. 50 and these regulations, are hereby permitted to move interstate, without restriction, from any portion or portions of the State of Alabama not included within the areas now designated, or which may hereafter be designated, by the Secretary of Agriculture, as infested areas, when, and so long as, the State of Alabama cooperates with the United States Department of Agriculture in the establishment and enforcement of such control measures

[2] The State quarantine, with which this quarantine collaborates, covers also nursery stock, except when such stock and packing materials shall have been so treated by fumigation or otherwise as to destroy the Mexican bean beetle in any stage or in hibernation under the supervision of a duly qualified inspector appointed by State or Federal authorities.

with respect to the designated infested areas, as, in the judgment of the Secretary of Agriculture, shall be deemed adequate to effect the control and prevent the spread of the Mexican bean beetle.

This notice of quarantine and these regulations shall become effective May 1, 1921, and shall be in force until further notice.

Done in the District of Columbia this 8th day of April, 1921.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL.] HENRY C. WALLACE,
Secretary of Agriculture.

STATE AND FEDERAL QUARANTINE AGAINST MEXICAN BEAN BEETLE—(PRESS NOTICE).

The Secretary of Agriculture has approved a quarantine of the State of Alabama on account of the Mexican bean beetle, effective May 1. This quarantine places restrictions on the interstate movement of various farm and garden crops which may be a means of carrying this pest to other States. In view of the quarantine promulgated by the State of Alabama giving similar control within the State over the areas actually invaded by this pest, it will be possible to limit the restrictions of the Federal quarantine to such areas.

The restrictions of the Federal and State quarantines apply to (1) fresh or green cultivated beans, including all common garden or field beans, whether string, snap, or shell beans, and including all lima beans, California black-eyed peas or beans, and all green cowpeas and soy beans, but not including velvet beans or English peas or thoroughly dried and cleaned shelled beans or peas of any kind; (2) all forms of "greens," or edible plant leaves, such as those of mustard, chard, spinach, turnips, beets, collards, cabbage, and lettuce, and green corn ("roasting ears"), and matured corn in the shuck; and (3) hay, and similar forage crops, including alfalfa and peavine hay and corn stover, whether baled or loose, and also such forage crops when included with shipments of live stock.

This quarantine does not place an embargo on the movement of the products enumerated. In other words, provision is made in the quarantine for the movement under inspection and certification of practically all of these products. In general, this quarantine supplements the existing State quarantine by giving authority to prevent interstate movement of the products and in this way, it is believed, will render unnecessary quarantine action on account of this insect against Alabama on the part of the surrounding States.

The authorities of Alabama and of other States have asked for the aid of a Federal quarantine in the attempt to control and, if possible, exterminate this pest and to prevent its interstate spread. Such cooperation on the part of this department has been provided for under a special appropriation of $100,000 made by the last Congress for the fiscal year ending June 30, 1922, of which sum $25,000 was made immediately available.

The Mexican bean beetle many years ago extended its range from Mexico into New Mexico, Arizona, and Colorado, and is an important enemy of the bean crop throughout this area. The natural barrier of the more or less arid and uncultivated region between these western States and the Mississippi Valley has apparently hitherto prevented this pest from extending its range eastward. It is believed to have been conveyed recently to Alabama with shipments of western alfalfa hay, and it has rapidly attained a foothold in certain counties in that State and over considerable areas it has completely destroyed the bean crops. It also attacks legumes generally, including the cowpea, and thus menaces fertilizer crops so important to the agriculture of the South.

QUARANTINE ON ACCOUNT OF THE CITRUS BLACK FLY.

NOTICE OF QUARANTINE NO. 49, WITH REGULATIONS.

(Effective on and after Apr. 1, 1921.)

The fact has been determined by the Secretary of Agriculture, and notice is hereby given, that an injurious insect, the citrus black fly (*Aleurocanthus woglumi* Ashby), new to and not heretofore widely prevalent or distributed within and throughout the United States, occurs in Cuba, the Bahamas, Jamaica, Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java.

Now, therefore, I, E. T. Meredith, Secretary of Agriculture, under authority conferred by the act of Congress approved August 20, 1912, known as the plant-quarantine act (37 Stat., 315), do hereby declare that it is necessary, in order to prevent the introduction of the citrus black fly, to forbid, except as provided in the rules and regulations supplemental hereto, the importation or entry into the United States from Cuba, the Bahamas, Jamaica, Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java of fruits and vegetables in the raw or unprocessed state, and of plants or portions of plants used as packing material in connection with shipments of such fruits and vegetables, or otherwise, and to forbid, except as provided in said rules and regulations, the movement, from the port of first arrival in the United States, of any railway car, boat, or other vehicle coming to any such port from said countries.

On and after April 1, 1921, and until further notice, the importation or entry into the United States from Cuba, the Bahamas, Jamaica, Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java of fruits and vegetables in the raw or unprocessed state, and of plants or portions of plants used as packing material in connection with shipments of such fruits and vegetables or otherwise, except as provided in the rules and regulations supplemental hereto, is prohibited, and no railway car, boat, or other vehicle coming to any port of first arrival in the United States from said countries, shall move or be allowed to move from such port except in accordance with the rules and regulations supplemental hereto.

Done in the District of Columbia this 16th day of February, 1921.

Witness my hand and the seal of the United States Department of Agriculture.

[SEAL.] E. T. MEREDITH,
Secretary of Agriculture.

RULES AND REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 49, GOVERNING THE IMPORTATION OF FRUITS AND VEGETABLES FROM CUBA, THE BAHAMAS, JAMAICA, CANAL ZONE, COSTA RICA, INDIA, PHILIPPINE ISLANDS, CEYLON, AND JAVA.

Regulation 1. Definitions.

(*a*) Citrus black fly: The insect known as the black fly of citrus and other subtropical plants, variously referred to as the black fly, the citrus black fly, the blue fly, the citrus blue fly, and the mosca prieta (*Aleurocanthus woglumi* Ashby).

(*b*) Fruits and vegetables: The edible, more or less succulent, portions of food plants in the raw or unprocessed state, such as bananas, oranges, grapefruits, pineapples, tomatoes, peppers, lettuce.

(*c*) Plants or portions of plants: Leaves, twigs, or other portions of plants, or plant litter or rubbish as distinguished from clean fruits and vegetables, or other commercial articles.

(*d*) Port of first arrival: The first port within the United States where the shipment is (1) offered for consumption entry or (2) offered for immediate transportation in bond.

Regulation 2. Limitations on entry of fruits and vegetables.

All plants or portions of plants as defined in Regulation 1–c are prohibited entry.

Clean fruits and vegetables, other than those subject to special quarantines, may be imported from the countries and localities named in this quarantine under permit upon compliance with these regulations.

No restriction is placed on entry of processed fruits and vegetables.

Regulation 3. Applications for permits for importation of fruits and vegetables.

Persons contemplating the importation of fruits or vegetables shall first make application to the Federal Horticultural Board for a permit, stating in the application the country or locality of origin of the fruits or vegetables, the port of first arrival, and the name and address of the importer in the United States to whom the permit should be sent.

Applications for permits should be made in advance of the proposed shipments; but if, through no fault of the importer, a shipment should arrive before a permit is received, the importation will be held in customs custody at the port of first arrival at the risk and expense of the importer for a period not exceeding 20 days, pending the receipt of the permit.

Application may be made by telegraph, in which case the information required above must be given.

A separate permit must be secured for shipments from each country and for each port of first arrival in the United States.

Regulation 4. Issuance of permits.

On approval by the Secretary of Agriculture of an application for the importation of fruits or vegetables, a permit will be issued in quadruplicate; one copy will be furnished to the applicant for presentation to the customs officer at the port of first arrival, one copy will be mailed to the collector of customs and one to the inspector of the Department of Agriculture at the port of first arrival, and the fourth will be filed with the application. All permits will be valid from date of issuance until revoked.

Regulation 5. Notice of arrival by permittee.

Immediately upon the arrival of fruits or vegetables from the countries specified in the quarantine, at the port of first arrival, the permittee or his agent shall submit a notice in duplicate to the Secretary of Agriculture, through the collector of customs on forms provided for that purpose, stating the number of the permit, the kinds of fruits or vegetables, the quantity or the number of crates or other containers included in the shipment, the country or locality where grown, the date of arrival, the name of the vessel, the name and number, if any, of the dock where the fruits or vegetables are to be unloaded, and the name of the importer or broker at the port of first arrival.

Permits may be revoked and other permits refused if the permittee or his agent fails to submit the notice of arrival or gives a false notice, or in any other way violates the quarantine.

Regulation 6. Inspection and disinfection at port of first arrival.

All importations of fruits or vegetables shall be subject, as a condition of entry, to such inspection or disinfection, or both, at the port of first arrival, as shall be required by the inspector of the Department of Agriculture, and shall be subject to reinspection at destination, at the option of said department.

Should any shipment of fruits or vegetables be found to be so infested that in the judgment of the inspector of the Department of Agriculture it can not be cleaned by disinfection or treatment, or to contain leaves, twigs, or other portions of plants as packing or otherwise, the entire shipment may be refused entry.

No crate, box, hamper, or other container of fruits or vegetables, or fruits and vegetables in bulk, shall be removed from the port of first arrival unless and until a written notice is given to the collector of customs by the inspector of the United States Department of Agriculure that the products have been inspected and found to be apparently free from the citrus black fly and from plants or portions of plants used as packing or otherwise: *Provided*, That, with respect to products entering the State of Florida for local consumption, in addition to the requirements set forth above, the officials of the State Plant Board of Florida may require such fumigation or disinfection as they shall deem necessary.

All charges for storage, cartage, and labor incident to inspection and disinfection, other than the services of the inspector, shall be paid by the importer.

Regulation 7. Railway cars, boats, or other vehicles.

Railway cars, boats, or other vehicles, as a condition of entry, whether with or without cargoes, shall be subject to inspection, and, if necessary, to such cleaning and disinfection as shall be required by the inspector of the Department of Agriculture, for the purpose of either determining their freedom, or to free them, from plants or portions of plants used as packing material in connection with shipments of fruits and vegetables, or otherwise: *Provided*, That the inspector of the Department of Agriculture may deny entry to cars or other vehicles so fouled with plants or portions of plants as to indicate a failure to make any reasonable effort to comply with the requirements of cleanliness as a condition of entry.

Notice of arrival of all railway cars or other vehicles shall be made to the inspector of the Department of Agriculture at the port of first arrival, giving the initials and numbers of such cars or description of such vehicles.

The above rules and regulations are hereby adopted, effective April 1, 1921, and shall be in force until further notice.

E. T. MEREDITH,
Secretary of Agriculture.

FEBRUARY 16, 1921.

DEPARTMENT ANNOUNCES QUARANTINE AGAINST CITRUS BLACK FLY.

(Press notice.)

WASHINGTON, D. C., *February 21, 1921.*—A quarantine to protect the citrus industry of the United States by preventing the introduction of the citrus black fly, an injurious insect pest, was announced to-day by the Federal Horticultural Board of the United States Department of Agriculture. The order, signed by Secretary Meredith, becomes effective April 1 and provides regulations for the entry into this country of fruits and vegetables from Cuba, the Bahamas, Jamaica, the Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java. The quarantine applies to the products in their raw or unprocessed state and to plants or parts of them used as packing material. The rules cover the movement of any railway car, boat, or other vehicle from these countries upon its first arrival at a United States port.

Clean fruits and vegetables, other than those subject to special quarantines, may be imported from these countries upon compliance with the regulations. No restriction is placed on entry of processed fruits and vegetables. Action was taken following a hearing at which many persons interested in the quarantine were present.

WEST INDIAN AUTHORITIES HELP KEEP OUT CITRUS BLACK FLY.

(Press notice, Mar. 28, 1921.)

Fears of tropical fruit and vegetable growers and shippers, due to the American quarantine against the citrus black fly, effective April 1, are rendered groundless through the hearty cooperation of the Cuban Go[illegible] Indian growers, according to a report made by Dr. W[illegible] Department of Agriculture specialist and member [illegible] Board, after his return from the West Indies.

The quarantine order, which was promu[illegible] dith after hearing of all interests conce[illegible] the importation of foliage and parts of [illegible] black-fly pest, and the contamination o[illegible] are infested. The black fly does not [illegible]

dence in the principal fruit-growing regions, so that precautionary measures centered around the prevention of contamination of fruit cars en route to ports and the exclusion of foreign materials in the cars.

President Menocal cordially received the American representative and issued a proclamation ordering the removal of all trees and other vegetable growth which could harbor the black fly for a distance of 200 feet on each side of all railroad lines carrying fruit for shipment. Special precautionary measures for clean packing were also ordered by the President in cooperation with the Cuban Secretary of Agriculture, Commerce, and Labor.

The eagerness of the Cuban Government to cooperate with the American authorities is shown in the fact that the order for cleaning up railroad lines means the removal of many fine mango trees on the right of way, in addition to the prevalent guava weed and occasional coffee trees.

The quarantine order particularly affects the pineapple, grapefruit, pepper, eggplant, and okra trade of Cuba and the Isle of Pines, and the tomato-shipping industry of the Bahamas. The Government authorities of the Bahamas also promised cooperation, and growers in both places acceded readily to control measures.

The Federal Horticultural Board will cooperate with Florida plant-control authorities in arranging for the speedy inspection of shipments, which include three train loads a day carried from Cuba to Key West by car ferry.

The prompt action of interested Governments and private parties relieves anxiety regarding shipments amounting to several million dollars a year.

THE CITRUS BLACK FLY QUARANTINE—INSTRUCTIONS TO INSPECTORS.

MARCH 25, 1921.

QUARANTINE ENFORCED AT PORT OF FIRST ARRIVAL.

It will be noted that nearly all of the requirements of quarantine 49 on account of the citrus black fly are to be met at the *port of first arrival* and not at the *customs port of entry* where such port of entry differs from the port of first arrival.

NUT FRUITS INCLUDED.

The term "fruits and vegetables" as used in the quarantine and defined in general terms in regulation 1 is understood by the board to include nut fruits, such as coconut, etc., particularly for the purpose of enforcing the freedom of shipments of such nut fruits from leafage or other unnecessary portions of plants.

INSPECTION REQUIREMENTS AT NORTHERN PORTS.

Inasmuch as the quarantine is primarily for the protection of the tropical and [illegible]nical cultures of the United States, the regulations have been drawn [illegible] inspectors, under authorization from the board, to modify [illegible]tion requirements with respect particularly to north- [illegible] modification is specifically provided for in Regu-

[illegible] getables shall be subject, as a condition of [illegible]ction, or both, at the port of first arrival [illegible] *of the Department of Agriculture* and [illegible] destination *at the option of said de-*

[illegible] northern ports of first arrival are [illegible]rts north of Florida. As to such

northern ports, the essentials to be enforced by the inspector are the permit requirements, the reporting of arrival of shipments, and such inspection from time to time as may be necessary to determine the general freedom of importations from infestation and particularly from extraneous plants or portions of plants as defined in regulation 1 (c). It is not intended that any shipment of fruit shall be held for the purpose of such inspection or disinfection unless there is some specific reason therefor, and the inspector should, therefore, make his arrangements for such inspection either by advance notice or otherwise so that this requirement will not delay the entry of the product at such northern ports.

INSPECTION REQUIREMENTS AT SOUTHERN PORTS.

At southern ports of first arrival (that is, Florida Atlantic coast ports, all Gulf ports, and Pacific coast ports) each shipment of fruits and vegetables shall receive individual inspection either by the inspector of the board or by a State inspector appointed as a collaborator of the board, and specific compliance with the regulations will be required.

REINSPECTION OF IMPORTS.

Reinspection by Federal inspectors at destination of shipments as authorized in regulation 6 should be made from time to time as opportunity offers as to local markets. Reinspection of the shipments at interior destination points will be made only under specific authorization by the Federal Horticultural Board.

PERMITS.

Permits and notices of arrival, as specified in regulations 3, 4, and 5, are to be required at all ports of first arrival. A separate permit must be secured for shipments from each country and for each port of first arrival in the United States. One such permit will be valid for all kinds of fruits and vegetables from the country in question entering at the particular port of the United States designated and will remain valid until revoked.

NOTICES OF ARRIVAL.

Notices of arrival must be submitted in duplicate by the importer to the collector of customs with the entry papers. The inspector of the board will secure these notices from the collector of customs and forward the original to Washington, retaining the duplicate for his own files. At ports where the board maintains no inspection service, the collector of customs is requested to receive the duplicate notices of arrival and forward the original to the Federal horticultural board, United States Department of Agriculture, and retain the duplicate for his own records.

While the permits are issued in general terms, notices of arrival are required by regulation 5 to be specific in detail. The kinds of fruits or vegetables must be stated in the notice of arrival with the quantity or number of crates or other containers of each. Where possible, all reports of quantity should be recorded in terms of standard commercial units or packages and unusual units should be so explained on the notice that the data may be summarized intelligently in preparing reports.

It is not necessary to submit to the Secretary of Agriculture notices of arrival of railway cars and other vehicles. The arrival of such railway cars and other vehicles will be reported to the inspector of the board at the port of first arrival in the manner that he shall direct.

DISINFECTION.

The disinfection provided for in regulation 6 will ordinarily not be required at northern ports of first arrival; in other words, will be enforced only when there is a specific reason therefor. The same is also true as to southern ports of arrival. At such southern ports the requirements of disinfection will be those determined upon by the board in cooperation with the State authorities with respect to all products which enter that State for local consumption, and as ordered by the board as to products intended for interstate movement.

When shipments or parts thereof are required to be disinfected under regulation 6, a record of the disinfection will be entered by the inspector on the Notice of Arrival.

REFUSAL OF ENTRY.

Should it seem necessary to refuse entry to any commercial shipment on account of the presence of plant leafage or litter or on account of infestation, the inspector is requested for the present to hold such shipment and to report to the board with a full statement of conditions before final action is taken.

CLEANING OF CARS AND VESSELS.

The requirement as to cleaning of cars and vessels applies particularly to those coming to southern Atlantic and Gulf ports. The only rail traffic concerned is that via ferry from Habana to Key West. Importers will be able to reduce the restrictions on this form of traffic and other traffic entering southern ports to a minimum by strict compliance with the quarantine, namely, by limiting the shipments to clean fruit and vegetables free from plants or portions of plants used as packing material or otherwise and by cooperating with the carriers concerned to keep vessels, railway cars, and other conveyors in a clean and wholesome condition with respect to such extraneous plant material.

RELEASE OF SHIPMENTS.

At ports of first arrival where an inspector or collaborator of the board is stationed, he will indicate his release of shipments regulated by this quarantine by placing the word "Passed" and his signature and title on the appropriate customs papers.

UNCERTIFIED IMPORTED COTTON WASTE, AND BURLAP OR OTHER FABRIC WHICH HAS BEEN USED, OR OF THE KINDS ORDINARILY USED, FOR WRAPPING COTTON MUST BE HELD PENDING THE SECURING OF REQUIRED CERTIFICATE OR MUST BE DISINFECTED AS CONDITION OF RELEASE.

HB–135. April 11, 1921.

On and after June 1, 1921, unless the necessary certificates called for by regulations 6 and 14 of the cotton regulations accompany the invoice, cotton waste in the case of regulation 6 and bagging in the case of regulation 14, will not be released from customs custody until such certificates are produced or unless the material is disinfected. In other words the material will not be released upon the furnishing of a bond for the later production of the certificate as has been heretofore allowed.

Permission for the furnishing of bond for the later production of certificate was intended to cover extraordinary cases where through some unusual circumstances the certificate does not accompany the invoice. It was never intended as a general practice. However, experience has shown that in a large per-

centage of cases importers have taken advantage of this special concession as though it were a routine matter. In many cases the necessary certificate is not procured from the foreign shipper until after a protracted period of time. In some instances the foreign shippers state that they are unable to furnish the certificate.

All importers of cotton waste and bagging should communicate with their foreign shippers and impress upon them the necessity of sending the certificate with the invoice where such certificate can be consistently furnished.

C. L. MARLATT,
Chairman, Federal Horticultural Board.

TERMINAL INSPECTION—INSTRUCTIONS TO POSTMASTERS.

PLANTS AND PLANT PRODUCTS ADDRESSED TO PLACES IN FLORIDA.

(Inserted in February, 1921, supplement to the Postal Guide.)

Postmasters in the State of Florida are informed that provision has been made for the terminal inspection of plants and plant products at Miami, Dade County, and this place should, therefore, be added to the list of places within the State of Florida to which plants and plant products subject to terminal inspection may be sent by postmasters for inspection under the provisions of section 478¼, Postal Laws and Regulations.

MODIFICATION OF LIST OF PLANTS AND PLANT PRODUCTS SUBJECT TO TERMINAL INSPECTION IN MISSISSIPPI.

POST OFFICE DEPARTMENT,
THIRD ASSISTANT POSTMASTER GENERAL,
Washington, February 10, 1921.

POSTMASTER:

Referring to Article 30 on page 10 of the November, 1920, Supplement, postmasters in the State of Mississippi are informed that the list of plants and plant products subject to terminal inspection when addressed to places in Mississippi has been amended so as to exempt cabbage plants, tomato plants, pepper plants, and eggplant plants from such terminal inspection. Therefore, parcels containing such plants should not be transmitted to either Ocean Springs or Agricultural College for inspection, but should be delivered to the addressees as promptly as possible.

A. M. DOCKERY,
Third Assistant Postmaster General.

TERRITORY OF HAWAII PROVIDES FOR TERMINAL INSPECTION OF MAIL SHIPMENTS OF PLANTS AND PLANT PRODUCTS.

THIRD ASSISTANT POSTMASTER GENERAL,
Washington, February 17, 1921.

The Territory of Hawaii has established places for the terminal inspection of plants and plant products under the provisions of the act of March 4, 1915, embodied in section 478¼, P. L. and R., appearing on page 49 of the May, 1915, supplement to the Postal Guide.

All postmasters are, therefore, informed that packages containing plants or plant products addressed to places in the Hawaiian Islands may be accepted for mailing only when plainly marked so that the contents may be readily ascertained by an inspection of the outside thereof. The law makes the failure so to mark such parcels an offense punishable by a fine of not more than $100

The plants and plant products subject to terminal inspection in the Hawaiian Islands are described as follows:

"All florists' stock, trees, shrubs, vines, cuttings, grafts, scions, buds, fruit pits and other seeds of fruit and ornamental trees and shrubs, and other plants and plant products in the raw or unmanufactured state, except vegetable and flower seeds: *Provided*, That this list of plants and plant products shall not apply to plants and plant products shipped under the certification of the Federal Horticultural Board of the United States Department of Agriculture."

Postmasters within the Hawaiian Islands shall be governed strictly by the provisions of paragraphs 3, 4, 5, and 6, section 478¼, P. L. and R., in the treatment of all packages addressed for delivery at their offices containing any of the plants or plant products above described as subject to terminal inspection.

Inspection service is maintained at the places in the Hawaiian Islands named below, and all postmasters in the Hawaiian Islands shall, after receiving the required postage therefor, under the provisions of section 478¼, P. L. and R., send to the nearest inspection point each package containing plants or plant products subject to terminal inspection:

Honolulu, Hilo.

Owing to the perishable character of plants and plant products, the packages containing such matter must be given prompt attention.

Any failure of compliance with the foregoing instructions or with the provisions of section 478¼, P. L. and R., coming to the attention of any postmaster should be reported to the Third Assistant Postmaster General, Division of Classification.

W. J. Barrows,
Acting Third Assistant Postmaster General.

MISSISSIPPI PROVIDES ADDITIONAL TERMINAL INSPECTION POINTS.

Post Office Department,
Third Assistant Postmaster General,
Washington, April 8, 1921.

Postmaster:

In connection with previous instructions of this office appearing in article 30 on page 10 of the November, 1920, Supplement to the Postal Guide, relating to the terminal inspection of plants and plant products subject thereto when addressed to places in Mississippi, you are informed that provision has been made for the maintenance of facilities for such inspection at the additional places in Mississippi named below:

Jackson, Gulfport, Holly Springs.

Therefore you will hereafter, upon receiving the required postage, as prescribed by paragraph 3, section 478¼, Postal Laws and Regulations, send to the inspection point which is nearest to your office, parcels addressed for delivery at your office containing plants or plant products which are subject to terminal inspection.

W. J. Barrows,
Acting Third Assistant Postmaster General.

MODIFICATION OF LIST OF PLANTS AND PLANT PRODUCTS SUBJECT TO TERMINAL INSPECTION IN CALIFORNIA.

Third Assistant Postmaster General,
Washington, April 15, 1921.

Referring to previous instructions with reference to the terminal inspection of plants and plant products addressed for delivery at places within the State

of California, postmasters are advised that the list of plants and plant products subject to such inspection has been revised as follows:

> All florists' stock, trees, shrubs, vines, cuttings, grafts, scions, buds, fruit pits and other seeds of fruit and ornamental trees or shrubs, and other plants and plant products in the raw or unmanufactured state, except vegetable and flower seeds: *Provided*, That this list of plants and plant products shall not apply to plants and plant products shipped under the certificate of the Federal Horticultural Board of the United States Department of Agriculture.

Postmasters within the State of California shall be governed strictly by the provisions of paragraphs 3, 4, 5, and 6, section 478¼, Postal Laws and Regulations, in the treatment of all packages addressed for delivery at their offices containing any plants or plant products above described as subject to terminal inspection.

W. J. Barrows,
Acting Third Assistant Postmaster General.

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADVISABILITY OF EXTENDING THE CITRUS FRUIT QUARANTINE (NO. 28) TO AUSTRALIA, TASMANIA, AND NEW ZEALAND.

The Secretary of Agriculture has information that the distribution of a dangerous disease known as citrus canker (*Pseudomonas citri* Hasse), not heretofore widely prevalent or distributed within and throughout the United States, has been extended from the countries listed in Quarantine No. 28 to other parts of Oceania, and that it now exists in Australia.

It, therefore, becomes the duty of the Secretary of Agriculture to consider the advisability of prohibiting the further importation of citrus fruits from Australia, Tasmania, and New Zealand, except under the conditions of the regulations governing the importation of oranges of the mandarin class, prescribed in Quarantine No. 28.

Notice is, therefore, hereby given that, in compliance with section 7 of the plant quarantine act of August 20, 1912 (37 Stat., 315), a public hearing will be held at the Department of Agriculture, Washington, D. C., Room 10, Entomology Building, at 10 a. m., on July 19, 1921, in order that any person interested in the subject of the proposed extension of this quarantine may appear and be heard either in person or by attorney.

PUBLIC HEARING ON PROPOSAL TO EXTEND PLANT QUARANTINE.

(Press notice, June 17, 1921.)

A ban upon the importation of citrus fruits from Australia, Tasmania, and New Zealand, in an effort to prevent the introduction of the citrus canker into the United States, will be considered at a public hearing to be held here by the Federal Horticultural Board, United States Department of Agriculture, July 19, 1921, at 10 a. m. Any person interested in the proposed quarantine may appear and be heard either in person or by attorney.

The proposed step is the latest of a series of similar safeguards now in force for the protection of the citrus groves in this country. The disease, which is a dangerous one, is not widely prevalent or distributed in this country. Its presence in other countries, however, particularly many parts of eastern and southeastern Asia, has resulted in quarantine against citrus fruits from these infested parts.

With the addition of Australia, Tasmania, and New Zealand, the quarantine would be complete against India, Siam, Indo-China, China, the Malayan Archi-

pelago, the Philippines, Oceania, Japan, Formosa, and the Union of South Africa. All citrus fruits from these places are excluded except oranges of the mandarin class, which are entered under permit.

TREASURY DECISIONS.

[T. D. 38655.]

IMPORTATION OF CITRUS FRUITS AND VEGETABLES FROM CERTAIN COUNTRIES PROHIBITED EXCEPT IN ACCORDANCE WITH REGULATIONS.

TREASURY DEPARTMENT, *March 12, 1921.*

To collectors of customs and others concerned:

The appended notice of quarantine No. 49, with regulations by the Secretary of Agriculture, effective April 1, 1921, prohibiting the importation on account of the citrus black fly of fruits and vegetables from certain countries, except in accordance with the regulations, is published for the information and guidance of customs officers and others concerned.

JAMES H. MOYLE,
Assistant Secretary.

[Then follows the text of the quarantine and regulations.]

[T. D. 38695.]

REVISED REGULATIONS COVERING THE IMPORTATION OF POTATOES.

TREASURY DEPARTMENT, *April 28, 1921.*

To collectors of customs and others concerned:

The appended copy of the revised regulations issued by the Secretary of Agriculture governing the importation of potatoes into the United States, effective March 1, 1921, and superseding the regulations as revised December 8, 1915, is published for the information and guidance of collectors of customs and others concerned.

JAMES H. MOYLE,
Assistant Secretary.

[Then follows the text of the regulations.]

CONVICTIONS FOR VIOLATIONS OF THE PLANT QUARANTINE ACT.

The following convictions for violations of the plant quarantine act were reported to the board during the period January 1 to June 30, 1921:

Mediterranean fruit fly and melon fly quarantine.—In the case of the United States *v.* Louis Cadina, in the shipment from Honolulu to San Francisco, without inspection and certification, of a box of mangoes and bananas which had been marked "merchandise" the defendant pleaded guilty and was sentenced to pay a fine of $20. (Plant Quarantine Case No. 78.)

White-pine blister-rust quarantine.—In the case of the United States *v.* George R. Murray, doing business as the Murray Nurseries, Oregon, Mo., in the interstate shipment of two white pines to a point outside of the quarantined area, the defendant was sentenced to pay a fine of $5. (Plant Quarantine Case No. 76.)

In the case of the United States *v.* Gardner Nursery Co., Osage, Iowa, in the interstate shipment of gooseberry bushes to a point outside of the quarantined area, the defendant pleaded guilty and was fined $12 and costs. (Plant Quarantine Case No. 73.)

In the case of the United States *v.* The Corn Belt Nursery and Forestry Association, Bloomington, Ill., in the interstate shipment of one large white

pine packed with other evergreens to a point outside of the quarantined area, the defendant pleaded guilty and was sentenced to pay a fine of $25 and costs. (Plant Quarantine Case No. 74.)

In the case of the United States *v.* Glen Bros., Inc., doing business as the Glenwood Nursery, Rochester, N. Y., in the interstate shipment of two lots of gooseberry bushes to points outside of the quarantined area, the defendant pleaded guilty and was sentenced to pay a fine of $50. (Plant Quarantine Case No. 64.)

In the case of the United States *v.* Lewis Roesch, doing business as the West Hill Nurseries, Fredonia, N. Y., in the interstate shipment of one bundle of shrubbery containing gooseberry bushes to a point outside of the quarantined area, the defendant pleaded guilty and was sentenced to pay a fine of $50. (Plant Quarantine Case No. 70.)

In the case of the United States *v.* James Vick's Sons, Rochester, N. Y., in the interstate shipment of currant and gooseberry plants to a point outside of the quarantined area, the defendant pleaded guilty and was sentenced to pay a fine of $50. (Plant Quarantine Case No. 63.)

LIST OF CURRENT QUARANTINE AND OTHER RESTRICTIVE ORDERS.

QUARANTINE ORDERS.

The numbers assigned to these quarantines indicate merely the chronological order of issuance of both domestic and foreign quarantines in one numerical series. The quarantine numbers missing in this list are quarantines which have either been superseded or revoked. For convenience of reference these quarantines are here classified as domestic and foreign.

DOMESTIC QUARANTINES.

Date palms.—Quarantine No. 6: Regulates the interstate movement of date palms or date-palm offshoots from Riverside County, Calif., east of the San Bernardino meridian; Imperial County, Calif.; Yuma, Maricopa, and Pinal Counties, Ariz.; and Webb County, Tex.; on account of the Parlatoria scale (*Parlatoria blanchardi*) and the Phoenicococcus scale (*Phoenicococcus marlatti*).

Hawaiian fruits.—Quarantine No. 13, revised: Prohibits or regulates the importation from Hawaii of all fruits and vegetables, in the natural or raw state, on account of the Mediterranean fruit fly and the melon fly.

Sugar cane.—Quarantine No. 16: Prohibits the importation from Hawaii and Porto Rico of living canes of sugar cane, or cuttings or parts thereof, on account of certain injurious insects and fungous diseases.

Five-leafed pines, Ribes and Grossularia.—Quarantine No. 26, as amended: Prohibits the interstate movement of five-leafed pines, currant and gooseberry plants from all States east of and including the States of Minnesota, Iowa, Missouri, Arkansas, and Louisiana to points outside of this area; prohibits, further, (1) the interstate movement of five-leafed pines and black-currant plants to points outside the area comprising the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and New York, and (2) to protect the State of New York, the movement from the New England States, on account of the white-pine blister rust.

Sweet potato and yam.—Quarantine No. 30: Prohibits the movement from the Territories of Hawaii and Porto Rico into or through any other Territory, State, or District of the United States of all varieties of sweet potatoes and yams (*Ipomoea batatas* and *Dioscorea* spp.), regardless of the use for which the same are intended, on account of the sweet-potato weevil (*Cylas formicarius*) and the sweet-potato scarabee (*Euscepes batatæ*).

Banana plants.—Quarantine No. 32: Prohibits the movement from the Territories of Hawaii and Porto Rico into or through any other Territory, State, or District of the United States of any species or variety of banana plants (*Musa* spp.), regardless of the use for which the same are intended, on account of two injurious weevils, *Rhabdocnemis obscurus* and *Metamasius hemipterus*.

Black stem rust.—Quarantine No. 38: Prohibits the movement interstate to any point outside of the quarantined area of the common barberry and its horticultural varieties, as well as certain other species of Berberis and Mahonia, on account of the black stem rust of wheat, oats, barley, rye, and many wild and cultivated grasses.

European corn borer.—Quarantine No. 43, as amended: Regulates the movement interstate to any point outside of the quarantined area of corn and broom corn (including all parts of the stalk), celery, green beans in the pod, beets with tops, spinach, rhubarb, oat and rye straw as such or when used as packing, cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers or entire plants of gladiolus and dahlia, except the bulbs thereof, without stems, on account of the European corn borer (*Pyrausta nubilalis*).

Gipsy moth and brown-tail moth.—Quarantine No. 45: Regulates the movement interstate to any point outside of the quarantined towns and territory, or from points in the generally infested area to points in the lightly infested area, of stone or quarry products, and of the plants and the plant products listed therein. The quarantine covers all the New England States.

Pink bollworm.—Quarantine No. 46, as amended: Prohibits the interstate movement from the infested and regulated areas of Texas and Louisiana of cotton, including all parts of the plant, seed cotton, cotton lint, linters, gin waste and all other forms of cotton lint, cotton seed, cottonseed hulls, cottonseed cake and meal, bagging and other containers of the articles enumerated, and also railway cars, boats, and other vehicles which have been used in conveying cotton and cotton products grown in the infested districts or which are fouled with such products, hay and other farm products, farm household goods, and farm equipment, except as provided in the rules and regulations supplemental thereto, on account of the pink bollworm of cotton (*Pectinophora gossypiella* Saunders).

Hawaiian and Porto Rican cotton, cotton seed, and cottonseed products.—Quarantine No. 47: Regulates the movement of cotton, cotton seed, and cottonseed products from Hawaii and Porto Rico on account of the pink bollworm and the cotton blister mite, respectively.

Japanese beetle.—Quarantine No. 48, as amended: Regulates the movement interstate to any point outside of certain portions of the counties of Burlington and Camden, N. J., and certain portions of the counties of Philadelphia and Bucks, Pa., of (1) farm, garden, and orchard products of all kinds; (2) grain and forage crops of all kinds; (3) nursery, ornamental, and greenhouse stock and all other plants, including bulbs and cut flowers, and (4) soil, compost and manure other than fresh manure, on account of the Japanese beetle (*Popillia japonica*).

Mexican bean beetle.—Quarantine No. 50, with regulations: Prohibits the interstate movement from designated areas in Alabama of (1) fresh or green cultivated beans, including all common garden or field beans, whether string, snap, or shell beans, and including all lima beans, California black-eyed peas or beans, and all green cowpeas and soy beans, but not including velvet beans or English peas or thoroughly dried and cleaned shelled beans or peas of any kind; (2) all forms of "greens," or edible plant leaves, such as those of mustard, chard, spinach, turnips, beets, collards, cabbage, and lettuce, and green corn ("roasting ears"), and matured corn in the shuck; and (3) hay, and similar forage crops, including alfalfa and pea-vine hay and corn stover, whether baled or loose, and also such forage crops when included with shipments of live stock, except as provided in the rules and regulations supplemental thereto, on account of the Mexican bean beetle (*Epilachna corrupta*).

FOREIGN QUARANTINES.

Irish potatoes.—Quarantine No. 3: Prohibits the importation of the common or Irish potato from Newfoundland; the islands of St. Pierre and Miquelon; Great Britain, including England, Scotland, Wales, and Ireland; Germany; and Austria-Hungary, on account of the disease known as potato wart.

Mexican fruits.—Quarantine No. 5, as amended: Prohibits the importation of oranges, sweet limes, grapefruit, mangoes, achras sapotes, peaches, guavas, and plums from the Republic of Mexico, on account of the Mexican fruit fly.

Five-leafed pines, Ribes, and Grossularia.—Quarantine No. 7, as amended: Prohibits the importation from each and every country of Europe and Asia, and from the Dominion of Canada and Newfoundland, of all five-leafed pines and all species and varieties of the genera *Ribes* and *Grossularia*, on account of the white-pine blister rust.

Cotton seed and cottonseed hulls.—Quarantine No. 8, as amended: Prohibits the importation from any foreign locality and country, excepting only the locality of the Imperial Valley, in the State of Lower California, Mexico, of cotton seed (including seed cotton) of all species and varieties, and cottonseed hulls, on account of the pink bollworm. Cotton and cotton seed from the Imperial Valley may be entered under permit and regulation.

Seeds of avocado or alligator pear.—Quarantine No. 12: Prohibits the importation from Mexico and the countries of Central America of the seeds of the avocado or alligator pear, on account of the avocado weevil.

Sugar cane.—Quarantine No. 15: Prohibits the importation from all foreign countries of living canes of sugar cane, or cuttings or parts thereof, on account of certain injurious insects and fungous diseases. There are no restrictions on the entry of such materials into Hawaii and Porto Rico.

Citrus nursery stock.—Quarantine No. 19: Prohibits the importation from all foreign localities and countries of all citrus nursery stock, including buds, scions, and seeds, on account of the citrus canker and other dangerous citrus diseases. The term "citrus," as used in this quarantine, includes all plants belonging to the subfamily or tribe *Citratae.*

European pines.—Quarantine No. 20: Prohibits, on account of the European pineshoot moth (*Evetria buoliana*), the importation from all European countries and localities of all pines not already excluded by Quarantine No. 7.

Indian corn or maize and related plants.—Quarantine No. 24, as amended: Prohibits the importation from southeastern Asia (including India, Siam, Indo-China, and China), Malayan Archipelago, Australia, New Zealand, Oceania, Philippine Islands, Formosa, Japan, and adjacent islands, in the raw or unmanufactured state, of seed and all other portions of Indian corn or maize (*Zea mays* L.), and the closely related plants including all species of Teosinte (*Euchlaena*), Job's tears (*Coix*), *Polytoca*, *Chionachne*, and *Sclerachne*, on account of the downy mildews and *Physoderma* diseases of Indian corn, except that Indian corn or maize may be imported under permit and upon compliance with the conditions prescribed in the regulations of the Secretary of Agriculture.

Citrus fruit.—Quarantine No. 28: Prohibits the importation from eastern and southeastern Asia (including India, Siam, Indo-China, and China), the Malayan Archipelago, the Philippine Islands, Oceania, (except Australia, Tasmania, and New Zealand), Japan (including Formosa and other islands adjacent to Japan), and the Union of South Africa, of all species and varieties of citrus fruits, on account of the citrus canker, except that oranges of the mandarin class (including satsuma and tangerine varieties) may be imported under permit and upon compliance with the conditions prescribed in the regulations of the Secretary of Agriculture.

Sweet potato and yam.—Quarantine No. 29: Prohibits the importation for any purpose of any variety of sweet potatoes or yams (*Ipomoea batatas* and *Dioscorea* spp.) from all foreign countries and localities, on account of the sweet potato weevils (*Cylas* spp.) and the sweet potato scarabee (*Euscepes batatae*).

Banana plants.—Quarantine No. 31: Prohibits the importation for any purpose of any species or variety of banana plants (*Musa* spp.), or portions thereof, from all foreign countries and localities, on account of the banana root borer (*Cosmopolites sordidus*). No restrictions are placed on the importation of the fruit of the banana.

Bamboo.—Quarantine No. 34: Prohibits the importation for any purpose of any variety of bamboo seed, plants, or cuttings thereof capable of propagation, including all genera and species of the tribe *Bambuseae*, from all foreign countries and localities, on account of dangerous plant diseases, including the bamboo smut (*Ustilago shiraiana*). This quarantine order does not apply to bamboo timber consisting of the mature dried culms or canes which are imported for fishing rods, furniture making, or other purposes, or to any kind of article manufactured from bamboo, or to bamboo shoots cooked or otherwise preserved.

Nursery stock, plants, and seeds.—Quarantine No. 37, as amended, with regulations: Prohibits the importation of nursery stock and other plants and seeds from all foreign countries and localities, on account of certain injurious insects and fungous diseases, except as provided in the regulations. Under this quarantine the following plants and plant products may be imported without restriction: Fruits, vegetables, cereals, and other plant products imported for medicinal, food, or manufacturing purposes, and field, vegetable, and flower seeds. The entry of the following plants is permitted under permit: Lily bulbs, lily of the valley, narcissus, hyacinths, tulips, and crocus; stocks, cuttings, scions, and buds of fruits; rose stocks, including manetti, multiflora, brier rose, and rosa rugosa; nuts, including palm seeds, seeds of fruit, fores, ornamental, and shade trees; seeds of deciduous and evergreen ornamental shrubs, and seeds of hardy perennial plants.

Provision is also made for the issuance of special permits under safeguards to be prescribed in such permits for the entry in limited quantities of nursery

stock and other plants and seeds not covered in the preceding lists for the purpose of keeping the country supplied with new varieties and necessary propagating stock.

Flag smut and take-all.—Quarantine No. 39, with regulations: Prohibits the importation of seed or paddy rice from Australia, India, Japan, Italy, France, Germany, Belgium, Great Britain, Ireland, and Brazil on account of two dangerous plant diseases known as flag smut (*Urocystis tritici*) and take-all (*Ophiobolus graminis*). Wheat, oats, barley, and rye may be imported from the countries named only under permit and upon compliance with the conditions prescribed in the regulations of the Secretary of Agriculture.

European corn borer.—Quarantine No. 41, with regulations: Prohibits the importation of the stalk and all other parts, whether used for packing or other purposes, in the raw or unmanufactured state, of Indian corn or maize, broom corn, sweet sorghums, grain sorghums, Sudan grass, Johnson grass, sugar cane, pearl millet, napier grass, teosinte and Job's tears, from all foreign countries and localities, except as provided in the rules and regulations supplemental thereto, on account of the European corn borer (*Pyrausta nubilalis*) and other dangerous insects and plant diseases.

Mexican corn.—Quarantine No. 42, with regulations: Prohibits the importation of Indian corn or maize from Mexico, except as provided in the rules and regulations supplemental thereto, on account of the contamination of such corn with cotton seed more or less infested with the pink bollworm.

Stocks, cuttings, scions, and buds of fruits.—Quarantine No. 44: Prohibits the importation of stocks, cuttings, scions, and buds of fruits from Asia, Japan, Philippine Islands, and Oceania (including Australia and New Zealand) on account of dangerous plant diseases, including Japanese apple cankers, blister blight, and rusts, and injurious insect pests, including the oriental fruit moth, the pear fruit borer, the apple moth, etc.

Citrus black fly.—Quarantine No. 49, with regulations: Prohibits the importation of fruits and vegetables, and of plants or portions of plants used as packing material in connection with shipments of such fruits and vegetables, or otherwise, from Cuba, the Bahamas, Jamaica, Canal Zone, Costa Rica, India, Philippine Islands, Ceylon, and Java, except as provided in the rules and regulations supplemental thereto, on account of the citrus black fly (*Aleurocanthus woglumi*).

OTHER RESTRICTIVE ORDERS.

The regulation of the entry of nursery stock from foreign countries into the United States was specifically provided for in the plant-quarantine act. The act further provides for the similar regulation of any other class of plants or plant products when the need therefor shall be determined. The entry of the plants and plant products listed below has been brought under such regulation:

Nursery stock.—The conditions governing the entry of nursery stock and other plants and seeds from all foreign countries and localities are indicated above under "Foreign Quarantines." (See Quarantine No. 37.)

Irish potatoes.—The importation of Irish potatoes is prohibited altogether from the countries enumerated in the potato quarantine. Potatoes may be admitted from other foreign countries under permit and in accordance with the provisions of the regulations issued under the order of December 22, 1913, bringing the entry of potatoes under restriction on account of injurious potato diseases and insect pests. Importation of potatoes is now authorized from the following countries: Denmark, Cuba, Bermuda, and the Dominion of Canada. The regulations issued under this order have been amended so as to permit, free of any restrictions whatsoever under the plant-quarantine act, the importation of potatoes from any foreign country into the Territories of Porto Rico and Hawaii for local use only and from the Dominion of Canada and Bermuda into the United States or any of its Territories or Districts.

Avocado, or alligator pear.—The order of February 27, 1914, prohibits the importation from Mexico and the countries of Central America of the fruits of the avocado, or alligator pear, except under permit and in accordance with the other provisions of the regulations issued under said order, on account of the avocado weevil. Entry is permitted through the port of New York only and is limited to the large, thick-skinned variety of the avocado. The importation of the small, purple, thin-skinned variety of the fruit of the avocado and of avocado nursery stock under 18 months of age is prohibited.

Cotton.—The order of April 27, 1915, prohibits the importation of cotton from all foreign countries and localities, except under permit and in accordance with the other provisions of the regulations issued under said order, on account of injurious insects, including the pink bollworm. These regulations apply in part to cotton grown in and imported from the Imperial Valley, in the State of Lower California, in Mexico.

Corn.—The order of March 1, 1917 (Amendment No. 1, with Regulations to Notice of Quarantine No. 24), prohibits the importation of Indian corn or maize in the raw or unmanufactured state from the countries and localities listed in Notice of Quarantine No. 24, except under permit and in accordance with the other provisions of the regulations issued under said order, on account of injurious diseases of Indian corn.

Cottonseed products.—The order of June 23, 1917, prohibits the importation of cottonseed cake, meal, and all other cottonseed products, except oil, from all foreign countries, and a second order of June 23, 1917, prohibits the importation of cottonseed oil from Mexico, except under permit and in accordance with the other provisions of the regulations issued under said orders, on account of injurious insects, including the pink bollworm.

Citrus fruits.—The order of June 27, 1917 (Notice of Quarantine No. 28, with Regulations), prohibits the importation from the countries and localities listed therein of all species and varieties of citrus fruits, excepting only oranges of the mandarin class (including satsuma and tangerine varieties), on account of the citrus-canker disease. Oranges of the mandarin class (including satsuma and tangerine varieties) may be imported under permit and in accordance with the other provisions of the regulations issued under said order.

Indian corn, broom corn, and related plants.—The order of February 21, 1920 (Notice of Quarantine No. 41, with Regulations), prohibits the importation in the raw or unmanufactured state of the stalk and all other parts of Indian corn or maize, broom corn, sweet sorghums, grain sorghums, Sudan grass, Johnson grass, sugar cane, including Japanese varieties, pearl millet, napier grass, teosinte, and Job's tears from all foreign countries and localities on account of the European corn borer and other dangerous insects and plant diseases. The regulations issued under said order permit the importation without restriction of sorghum hay from Canada and clean shelled or threshed grain, from any country, of the plants covered by this order. Provision is also made for the importation of broom corn under permit and in accordance with the other provisions of the regulations for manufacturing purposes.

Mexican corn.—The order of February 21, 1920 (Notice of Quarantine No. 42, with Regulations), prohibits the importation of Indian corn or maize from Mexico, except under permit and in accordance with the other provisions of the regulations issued under said order, on account of contamination of such corn with cotton seed more or less infested with the pink bollworm.

Stocks, cuttings, scions, and buds of fruits.—The order of March 24, 1920 (Notice of Quarantine No. 44), prohibits the importation of stocks, cuttings, scions, and buds of fruits for or capable of propagation from Asia, Japan, Philippine Islands, and Oceania (including Australia and New Zealand) on account of certain dangerous plant diseases and injurious insect pests. Provision is made for the importation under special permits issued by the Secretary of Agriculture of limited quantities of stocks, cuttings, scions, and buds of fruits from the countries and localities named for the purpose of keeping the country supplied with new varieties and necessary propagating stock.

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